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PERCEIVED CHALLENGES UNDERGRADUATE DISTANCE EDUCATION STUDENTS OF UNIVERSITY OF WINNEBA IN THE NORTHERN REGION FACE IN CONDUCTING RESEARCH

JAMILATU SUMAILA

2020

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BY

JAMILATU SUMAILA

Thesis submitted to the Department of Education of the College of Distance Education, University of Cape Coast, in partial fulfilment of the award of Master of Philosophy in Administration in Higher Education

JANUARY, 2020

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DECLARATION

Candidates' Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature…….…… Date……

Name: …….…….……

Supervisor's Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature …… Date ……

Name: …….…….……

Co-supervisor's Signature ……..…… Date ……..

Name: …….…….……

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ABSTRACT

The study explored the challenges undergraduate distance education students of University of Education, Winneba, face in conducting research. For the purpose of the study, the descriptive research design with quantitative approach was used. Census sampling was used to select 433 first- and second-year undergraduate distance education students and 20 supervisors of University of Education, Winneba (Northern Region) who served as the sample for the study. Self-developed questionnaires were used to collect data for the study. The statistical tools that were used in the analysis included frequencies, percentages, means and standard deviations. The study revealed student-related challenges such as inadequate time to conduct research work and inadequate theory and knowledge in the area being researched as affecting the conduct of students' research work. The results of the study also revealed supervisor-related challenges such as inability to meet students regularly, difficulty to return students' work promptly, and difficulty to communicate with students on their progress on time. Results of the study also revealed institutional-related challenges to include the lack of online research resources on university's website and little or no online interactions in research work. In addition, the study explored some suggested ways of solving the aforementioned challenges. Recommendations included the need to extend the time used by distance education students in studying research methods and adequacy of time needed to conduct the research work.

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DEDICATION

To my husband and children

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TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
ACKNOWLEDGEMENTS	iv
DEDICATION	v
TABLE OF CONTENTS	vi
LIST OF TABLES	x
LIST OF FIGURES	xii
CHAPTER ONE: INTRODUCTION	1
Background to the Study	2
Statement of the Problem	4
Purpose of the Study	6
Research Questions	7
Significance of the Study	7
Delimitations of the Study	8
Limitations of the Study	9
Definition of Terms	9
Organisation of the Study	10
CHAPTER TWO: LITERATURE REVIEW	12
Overview	12
Theoretical Review	12
Theoretical Constructs of Distance Education	12
Bronfenbrenner's Ecological Systems Theory	17
Concept of Distance Education	19
Characteristics of Distance Education	20

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University of Cape Coast https://ir.ucc.edu.gh/xmlui

Relevance of distance education 22

General challenges of distance education 22

Meaning of research and educational research 23

Relevance of research and educational research 24

Overview of the Types of Research 27

Fundamental/basic research 27

Applied research 27

Action research 28

Quantitative research 30

Qualitative research 30

Research and the classroom 32

Features of educational research 35

Overview of the general challenges of research in education 39

Challenges students face in conducting research 41

Student-related challenges 41

Lack of time 42

Lack of money 42

Lack of commitment and motivation 42

Lack of adequate theory in the area being researched 43

Students' failure to meet supervisors and family problems/commitments 43

Supervisor-related challenges 44

Few meetings with students 44

Lack of interest in students' topic 44

Little or no practical help and direction 45

Failure to return students' work promptly 45

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Lack of research experience and relevant research skills/knowledge 46

Institutional-related challenges 46

Inadequate courses in research methods 47

Inadequate time to complete research work 47

Lack of supervisors' exposure to research skills 48

Lack of research material 48

Ways to solving the challenges students face in conducting research 48

Empirical review 51

Chapter Summary 54

CHAPTER THREE: RESEARCH METHODS 56

Research Design 56

Study Area 57

Population 60

Sample And Sampling Procedures 61

Data Collection Instrument 61

Validity and Reliability of the Instrument 64

Data Collection Procedure 65

Ethical Considerations 65

Data Processing and Analysis 66

Chapter Summary 67

CHAPTER FOUR: RESULTS AND DISCUSSIONS 68

Overview 68

Results 68

Demographic Characteristics of Senior High School Students 68

Gender of Respondents 68

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

Gender of Supervisors 69

Research Question One: 70

Research Question Two 74

Research Question Three 77

Research Question Four 81

Discussions 84

Chapter Summary 93

CHAPTER FIVE: SUMMARY,CONCLUSION & RECOMMENDATION 95

Introduction 95

Overview of the Study 95

Summary of Key Findings 96

Conclusions 98

Recommendations 99

Suggestions for Further Studies 101

APPENDICES 108

APPENDIX A- 109

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

LIST OF TABLES

Table Page

1 Distribution of Students' Population Based on Study Centre and Years 60

2 Distribution of Supervisors' Population Based on Study Centre 61

3 Gender of Respondents 69

4 Study Centre of Respondents 69

5 Gender of Supervisors 70

6 Study Centre where Supervisors were met 70

7 Student-related Challenges Undergraduate Distance Education Students of UEW, Winneba Face in Conducting Research 71

8 Supervisors' View on Student-related Challenges Undergraduate Distance Education Students of UEW, Winneba Face in Conducting Research 73

9 Supervisor-related Challenges Undergraduate Distance Education students of UEW, Winneba face in conducting research 75

10 Supervisors' view on supervisor-related Challenges Undergraduate Distance Education students of UEW, Winneba Face in Conducting Research 76

11 Institutional-related Challenges Undergraduate Distance Education students of UEW, Winneba Face in Conducting Research 78

12 Supervisors' view on Institutional-related Challenges Undergraduate Distance Education students of UEW, Winneba Face in Conducting Research 80

13 Suggested Ways by Students to Solve the Challenges Undergraduate Distance Education Students of UEW Face in Conducting Research 82

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

14 Suggested Ways by Supervisors to Solve the Challenges Undergraduate Distance Education Students of UEW Face in Conducting Research 83

Digitized by Sam Jonah Library

University of Cape Coast https://ir.ucc.edu.gh/xmlui

LIST OF FIGURES

Figure Page

1 Educational research process 35

2 Conceptual framework on the challenges distance education undergraduate students face in conducting research 50

3 Geographical Map 59

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CHAPTER ONE

INTRODUCTION

With reference to the undergraduate distance education students of the University of Education Winneba in the northern region of Ghana, students face a number of challenges in the conduct of their project work. Looking at the relevance of the conduct of project work which is one of the requirements of a successful completion of their respective degrees, students should be able to complete their project works on time. When students are not able to complete their research/project work on time, the consequence is that they would not be able to graduate. In actual fact, students of the university and any other university is obliged to complete and have a feel of a research work. The agony then is the fact that, students encounter a wide variety of problems in the conduct of their project work.

As indicated by Thondhlana, Mawere and Weda (2011), Aderson, Day and MacLaughin (2006) and Pearce (2005) students face challenges in the conduct of their research works that are student-related, supervisor-related and institutional-related. There is the need to uncover and find lasting solutions to the challenges in that they would render students not to complete their programme of study and as a result, bestows a major concern to the students. The study is therefore important because it seeks to justify the case of the undergraduate distance education students by exploring the challenges they face in conducting their research in the study area. This will serve as a policy guideline for stakeholders in developing strategies to solve the challenges for the betterment of students and a better research experience.

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Background to the Study

The concept of educational research is important in the lives of students for several reasons. According to Creswell (2014), research is an enquiry which lead to an investigation of an identified problem of relevance. This suggests that whenever there is a problem, there is the need to conduct a research to investigate the existence of the problem and come out to solutions to the problems where necessary. According to Amedahe (2002), the investigation which comes as a form of research should be done scientifically for sake of objectivity, validity and reliability and thus, makes the conduct of a meaning of research a matter of methods.

As part of the research process and the general methods of conducting a meaningful research, students are to identify a problem from sources, collect and analyse the collected data and make a generalization of the results (Amedahe, 2002). It should be pointed out that when students are able to go through this experience, they are able to think critically and reflectively as part of their investigations and come out with solutions to existing gaps for their personal development and the for the development of the country within which they are.

Research, apart from instilling critical thinking abilities in students also ensures national development (Baafi-Frimpong, Milledzi & Yarquah, 2016). This is true because when students are able to identify the problems existing regarding a phenomenon, through research they are able to come out with solutions which when used could bring about development through the application of the findings of the research. It is in this regard that Mafenya

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(2014) stressed that a country cannot develop meaningfully without the application of the findings of scientific research.

Looking at the relevance of research, the Ghanaian educational enterprise especially at the tertiary level has inculcated it their curriculum. It has become interesting to know that all the Ghanaian tertiary institutions have made it mandatory that every undergraduate student must go through a research experience whether individually or in groups. As indicated earlier, students' inability to successfully complete this element of research as part of their studies would not them to graduate from school. While a lot of significance and recognition have been placed on students' conduct of research, they are faced with challenges when they enter into it.

Mapolisa and Mafa (2016) these challenges can be as result of some factors that result from the students themselves, their supervisors and the institutions within which they receive their education. For instance Pearce (2005) stressed that numerous students are scared of carrying out research because they see research and its conduct as highly above them. Bell (2000) similarly opined that a lot of tutors and/or supervisors in open and distance learning institutions do not get the opportunity to be involved in base line research which make them lack the necessary experience to supervise students' work.

Some other challenges according to Mapolisa and Mafa (2016), coming from the tutor and students are associated with lack of research interest and experience, tutor absence from work and failure to return to work promptly, lack of money, time, library resources and family problems. In addition, institution-related challenges come as a result of the lack of internet facilities, lack of

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research-related courses, lack of library resources, lack of computer literacy and lack of workshops (Mapolisa & Mafa, 2016). Emphatically, these factors negatively impact on the undergraduate students' capacities to conduct research.

As part of the challenges that undergraduate distance education students face, Mapolisa and Mafa (2016) stressed that, sometimes, students are attached with a single or multiple supervisor who have varied ideas regarding the conduct and supervision of students' research works. Judging from the case of the of the undergraduate students of the University of Education, Winneba, it was therefore unclear whether or not the challenges they face emanate from the students themselves, their supervisors or the intuitions within which they find themselves. In order to take a stance, was more appropriate to use empirical evidence to support the case of the distance education students of the University of Education, Winneba and it was in this regard that a study of this nature is necessary.

Statement of the Problem

Conducting an independent research is a requirement for some undergraduate and postgraduate students in the various universities in Ghana. In pursuance of conducting a good research work, students must possess research skills to avoid any heckle they might face on their way. Empirical studies have shown that undergraduate students, out of which distance undergraduate students are of no exception, are faced with some challenges when it comes to the conduct of their research projects (Mapolisa & Mafa, 2016; Day & MacLaughlin, 2006). Some of the challenges may include selection of research problem, reviewing the literature, access to learning resources, poor writing skills, supervisor-supervisee, data collection, time and financial

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management etc. The situation is even severe for distance undergraduate students. This is because, majority of the students are married and works whilst schooling. The issue of work-family conflict and marital responsibilities largely affect these students.

For instance, Bell (2005) and Pearce (2005) have stressed that some factors originating from the students and especially distance education students serve as challenges when it comes to writing their research project. It was established that factors such as lack of time, lack of money, lack of library resources, lack of commitment and motivation, among other factors serve as impediments to students in conducting their works.

In addition, according to Thondhlana, Mawere and Weda, and Mapolisa and Mafa (2016) students are faced with some institutional challenges which include lack of internet services, lack of research materials, imposing research topics on students, among others. Furthermore, supervisor-related challenges such as few meetings with students, no interest in students' topic, little or no direction and failure of supervisors to return their students' works promptly are factors that cause challenges to students in writing their research projects (Bell, 2000; Anderson, Day & MacLaughlin, 2006; Mapolisa & Mafa, 2016).

Looking at the relevance of research work in university education of which distance education students are included, it looks as if research conducted on the topic favoured the western world and thus, very limited/no information can be found in the case of Ghana (Bell, 2000; Anderson, Day & MacLaughlin, 2006; Mapolisa & Mafa, 2016). It should be pointed out the limited studies that have been conducted on the challenges distance education students face neglected the challenges the students face in conducting their research which is

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core to their completion of their programmes (Agbofa, 2012). In addition, regarding the challenges undergraduate distance education students face in conducting their research, no study have been conducted on the distance education students in Ghana and the Northern part of Ghana which has created a research lacuna.

With reference to the research gaps that have been identified and in accordance with the relevance of research work in university education, a study of this nature is important as it carefully focuses on obtaining evidences of the availability of the challenges as indicated in literature and other challenges that impede distance education students in the Northern Region in the conduct of their research projects. It is in this regard that the study sought to explore the challenges undergraduate distance education students of University of Education, Winneba in the Northern Region of Ghana face in conducting research.

Purpose of the Study

The purpose of the study was to explore the challenges undergraduate distance education students face in conducting research using the University of Education, Winneba, in the Northern Region of Ghana as a case. The specific objectives of the study sought to explore were:

1. student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research.
2. supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research.

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3. institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research, and
4. suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research.

Research Questions

The following research questions were formulated in line with the objectives of the study:

1. What student-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?
2. What supervisor-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?
3. What institutional-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?
4. What are the suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

Significance of the Study

A study of this nature is significant in numerous ways. First and foremost, the study would be beneficial to the stakeholders in education as the will be in the known of the various challenges that undergraduate distance

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education student's face in the conduct of their research. The challenges when known would serve as a policy guideline for stakeholders of education and especially authorities of distance education in the country to come out with the way forward of students when conducting their research. The findings of the study would also bring to light the various ways that these challenges when known, can be solved so that research works of distance education students will be improved.

The findings of the study would also direct supervisors, students and institutions to be on their toes in conducting and facilitating their research projects. When it is established in this study that the challenges emanate from students, supervisors or institutions, they would be conscious of the way they approach research for the betterment of the students and research base of the institution. Lastly, the study would be beneficial because it would add to the existing knowledge in literature with respect to the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region and Ghana at large face in conducting research.

Delimitations of the Study

The study was delimited to variables relating to the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. Specifically, the scope of the study covered challenges that emanated from the students, supervisors and institutions in the year 2020. In addition, the scope of the study covered undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana but not any other region.

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Limitations of the Study

One of the limitations of the study was the use of questionnaire which did not give in-depth description on respondents' experiences and allow for follow-ups on respondents' responses. Some of the items demanded further follow-up but the use of quantitative methodology which demanded the use of questionnaires did not allow for in-depth description of the responses and this might have resulted in giving out shallow responses by respondents. To reduce the effects of this limitation on study results, both students and projects supervisors were made to answer all items regarding the perceived challenges examined (student, supervisor and institutional challenge)

Furthermore, the quantitative methodology that was used required a large sample size and due to lack of resources, the study was limited to the Yendi and Tamale study centres of the Northern Region. Another limitation of the study had to do with limited access to literature and information on the study area. This was due to the unavailability of well-resourced data management system.

Definition of Terms

The following terms were defined and used conceptually for the study:

Challenges: these are hindrances or problems that negatively impact students' ability to conduct a research work.

Distance Education: delivery of learning or training for those who are separated mostly by time and space from those who are teaching or training them.

Institutional-related challenges: refers to the challenges, hindrances, problems and obstacles that emanate from the institutions within which

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students' study which serve as impediments regarding the conduct of their research works. These challenges include but not limited to lack of internet facilities, lack of research-related courses, lack of library resources, and lack of computer literacy and lack of workshops.

Student-related challenges: refers to the challenges, hindrances, problems and obstacles that emanate from the students which serve as impediments regarding the conduct of their research works. These challenges include but not limited to lack of money, time, library resources and family problems.

Supervisor-related challenges: refers to the challenges, hindrances, problems and obstacles that emanate from the supervisors which serve as impediments regarding the conduct of their research works. These challenges include but not limited to lack of research interest and experience, supervisor's absence from work and failure to return work promptly.

Undergraduate distance education students: refers to post diploma students who are yet to be awarded their first degree but receive learning or training and are separated mostly by time and space from those who are teaching or training them.

Undergraduate students: refers to post diploma students who are yet to be awarded their first degree.

Organisation of the Study

The study was composed of five chapters. Chapter one involved the introduction which covered the background to the study, statement of the problem, purpose of the study as well as research questions. The chapter also presented the significance of the study, delimitation and limitations of the study and definition of terms. Chapter two focused on the review of existing literature

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in relation to the challenges undergraduate distance education students face in conducting research. Specifically, the literature was reviewed in three main blocks which included the theoretical, conceptual and empirical review. The conceptual framework of the study was also captured in this chapter. The research methodology was presented in the third chapter. The chapter described the research design, population, sample and sampling procedures and data collection instruments. Issues on validity and reliability of the instruments, ethical considerations and field work as well as data analysis procedures were also captured in the third chapter. While the chapter four focused on the results and discussion of the study, the fifth chapter presented the summary, conclusions and recommendations from the findings as well as makes suggestions for further studies.

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CHAPTER TWO

LITERATURE REVIEW

Overview

The study explored the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The chapter reviewed literature on the topic regarding the findings and observations of several writers. Specifically, the review covers the theoretical review, conceptual review, empirical studies and conceptual frame work. The review covers concepts such as the meaning of educational research, relevance of educational research, concepts of distance education, the relevance of distance education and the challenges that students face in the conduct of their research work.

Theoretical review

The study used some theoretical constructs of distance education by Moore (1990) and the ecological systems theory by Bronfenbrenner (1995) as the theoretical reviews. The theories were used to better understand the challenges undergraduate distance education students face in conducting research. It should be emphasised that these theories were particularly developed to define and understand the concept of distance education as well as the immediate environments the students are exposed to when going through their system of education and conducting their research work.

Theoretical constructs of distance education

According to Moore and Kearsley (1996), the theoretical constructs of distance education include transactional distance, interaction, control and social

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context. The transactional distance captures what exists in all educational relationships. From the view of Moore and Kearsley (1996), this distance is determined by the amount of dialogue that occurs between the learner and the instructor as well as the amount of structure that exists in the design of the course. It should stressed that greater transactional distance occurs when an educational program has more structure and less student-teacher dialogue and this is very common in distance education courses (Moore & Kearsley, 1996). This is because, regular education offers a continuum of transactions from less distant to greater interaction and less structure, to distant education. This is due to the fact that in normal educational experiences, there are numerous interactions as compared to distance learning (Moore & Kearsley, 1996),). This continuum blurs the distinctions between conventional and distance programs because of the variety of transactions that occur between teachers and learners in both settings. Thus distance is not determined by geography but by the relationship between dialogue and structure (Moore & Kearsley, 1996).

Harden, Barnard and Donnan (1994) proposed that concept of transactional distance is a more dynamics model to examine the relationship between dialogue and structure. According to Harden, et al. (1994), when learner control and dialogue increase, transactional distance decreases. They concluded that it is not the location of leaners that determines the effect of instruction but the amount of transaction between learner and instructor (Harden, et al., 1994). This implies that the use of a well transactional systems may permit a greater variety of instruction to occur, thus improving dialogue to minimize transactional distance.

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Another theoretical construct according to Moore and Kearsley (1996), is interaction. It should be pointed out that this theory has become interesting to distance educators, and one that has received much attention in the theoretical literature. According to Moore and Kearsley (1996), there are three types of interaction that are essential in distance education. This includes learner-instructor interaction which provides motivation, feedback, and dialogue between the teacher and student. The next is the learner-content interaction which allows students to obtain intellectual information from the material and the last is the learner-learner interaction which focuses on the exchange of information, ideas, and dialogue that occur between students about the course, whether this happens in a structured or non-structured manner (Moore & Kearsley, 1996).

The concept of interaction is fundamental to the effectiveness of distance education programmes as well as traditional ones. It is in this regard that a fourth component to the models were outlined by Moore and Kearsley (1996). The learner-interface interaction which is the interaction between the learner and the technology that delivers instruction is a critical component of distance learning. This is because, as for a meaning distance education experience, understanding the use of the interface in all transactions is key in learning. Learners who do not have the basic skills required to use a communication medium spend inordinate amounts of time learning to interact with the technology and they have difficulties learning meaningfully. For this reason, instructional designers which include that of distance education must include learner-interface interactions that enable the learner to have successful interactions with the mediating technology.

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The next theoretical construct of distance education is control which specifically talks about independence and learner control. Koomson (1998) pointed out that students who perceive that their academic success is a result of their own personal accomplishments have an internal locus of control and are more likely to persist in their education. On the other hand, students with an external locus of control feel that their success, or lack of it, is due largely to events such as luck or fate outside their control. It therefore follows that those who have external locus of control are more likely to become dropouts. Factors of control that influence dropout rate have been of concern to distance educators as they search for criteria to predict successful course completion.

Cater (2001) explains that the concept of control should include independence, competence, and support. Control is more than independence which requires striking a balance among a learner's independence (the opportunity to make choices), competence (ability and skill), and support (both human and material). This confirms the significance of these three factors in that they portray accurately the complex interaction between teacher and learner in the distance learning setting (Cater, 2001).

The last theoretical construct of distance education is the social context. This refers to the social setting in which distance learning takes place. Specifically, the theory examines how the social environment affects motivation, attitudes, teaching, and learning. As part of distance learning technology has become a strong pillar. This has resulted in the use of media, internet materials and services (Agbofa, 2012). Technology-based learning activities are frequently used without attention to the impact on the local social environment.

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Agbofa (2012) urged that computer-mediated communication attempts to reduce patterns of discrimination by providing equality of social interaction among participants who may be anonymous in terms of gender, race, and physical features. However, there is evidence that the social equality factor may not extend, for example, to participants who are not good writers but who must communicate primarily in a text-based format (Agbofa, 2012). It is particularly important to examine social factors in distance learning environments where the communication process is mediated and where social climates are created that are very different from traditional settings.

One of the social factors that is particularly significant to distance educators is social presence. This refers to the degree to which a person feels "socially present" in a mediated situation. Social presence is inherent in the medium itself, and technologies offer participants varying degrees of "social presence'. It is in this sense that Carter (2001) concluded that cues given to students such as encouraging gestures, smiles, and praise are social factors that enhanced both students' satisfaction and their perceptions of distance learning.

The theories that have been discussed including transitionary distance, interaction, control and social context are very important in understanding the challenges distance education students face in conducting their research. This is because, as part of the transactional distance, there should be a cordial academic relationship between distance education students and their instructors (supervisors) as they conduct their research works. The conducted of the research work also calls for the interactions between supervisors and students which provide the basis of directions to the conduct of the research work. There should also be some form of independence and control to allow students to

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explore for themselves to conduct their research in well recognised social context. It is very obvious when distance education students do not access their necessities, they will face difficulties in their studies which includes the conduct of their research work.

Bronfenbrenner's Ecological Systems Theory

Bronfenbrenner (1995) theorised that the immediate environment of an individual is made up of four layers of systems which interact in various ways which can affect the total development of that individual. The four layers as indicated by Bronfenbrenner (1995) included the microsystems, mesosystems, ecosystems and macrosystems, and the theory is appropriate for describing the complex systems of schools, districts or individuals.

The microsystem explains the patterns of activities, roles and interpersonal relationships a developing person experience in a specific setting. The microsystem comes with characteristics of an individual such as temperament, personality and systems of beliefs (Bronfenbrenner, 1995). Particularly, the microsystem forms a set of structures which expose the developing individual to a direct contact and the influences with these structures. The theory is extended from human development to organizational development such as an individual school (Bronfenbrenner, 1995). The microsystem of a school includes students, family and parents, administration of the school, teachers and the community (Johnson, 2008).

According to Bronfenbrenner (1995), the mesosystem emphasises the linkages and relationships between the microsystems. For instance, the mesosystem of an individual school can be looked at from the perspective of an interaction between students and parents (two structures of microsystems). The

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expectations of parents and students with respect to the conduct of research their (students) research work and academic performance and success can have a direct or an indirect impact regarding the climate of the school. When students face difficulties in conducting their research work and fail to complete their education, it bestows a direct or indirect impact on the atmosphere of the school due to the fact that, pressures that ensure children's success are bestowed on the school by parents and other stakeholders.

The exosystem denotes the larger social system as well as event, decisions, policies and contingencies which the developing individual has no control or influence (Bronfenbrenner, 1995). This system places an influence which in direct or indirect way affect the developing individual. From the school's situation, the exosystem of a school is made up of structures such as state regulations, local disasters, local economics, laws and district mandates which affect the students and the entire school positively or negatively (Johnson, 2008). It can be inferred that negative factors that emanate from supervisors and the school can be detrimental to the conduct of students' research work.

The macrosystem depicts the social context which consists of the pattern of values, lifestyles, customs, beliefs, opportunities and resources of the individuals in the society (Bronfenbrenner, 1995). The macrosystem also places an influence on the individual and the other systems. Clearly, the macrosystem of the school is embedded in the nation in totality (Bronfenbrenner, 1995). From the Macrosystem, it can be inferred that student-related factors, supervisor factors and school related factors which are based on the cultural, political and

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economic systems of the school and the community as a whole might affect the way distance education students may conduct their research work.

With reference to the purpose of the study which sought to explore the challenges undergraduate distance education students face in conducting their research work, one has to consider the individual student and his or her immediate environment within which he or she lives and conducts his or her research work. This theory is important to this study because, it exposes the researcher to critically view the challenges distance education students face in conducting their research work as a phenomenon that is influenced by the immediate environment students come from. These environments include siblings, parents, workplaces relationship, school environment, among others (Bronfenbrenner, 1995). Any positive or negative influence from these agents that form the immediate environment of the student may hinder him or her in the conduct of his or her research work.

Concept of Distance Education

According to Agbofa (2012), distance education has existed from time immemorial. Although it is seen as an old concept, there appears to be confusion about terminology and the relationship between it and other forms of non-traditional methods of education. The Commonwealth Learning (2004) explains distance education as the delivery of learning or training for those who are separated mostly by time and space from those who are teaching or training them. The explanation according to the Commonwealth Learning (2004) suggests that distance education comes about when there is a separation between teachers and students due to the lack of time and space. From views of Moore and Kearsley (1996), the fundamental concept of distance education is the

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separation of students and teachers by distance. This sometimes necessitates the introduction of an artificial communications medium that will deliver information and also provide a channel for interaction between the teacher and the students (Moore & Kearsley, 1996).

The Faculty of Education (FOE) (2010) viewed distance education as the acquisition of knowledge and skills which occur as a result of a mediated information and instruction, encompassing all technologies and other forms of learning at a distance. Similarly, Pearce (2005) opined that distance learning/ education is an organized instructional programme in which teacher and learners are physically separated. A closer analysis of this definition reveals that it is less specific. This is because, it does not posit any effects on the learner and merely describes the existence of a programme in which, presumably, no learning at all might occur. According to Keegan (1995) distance learning is an improved capabilities in knowledge and/or behaviours as a result of mediated experiences that are constrained by time and/or distance such that the learner does not share the same situation with what is being learned. Distance education is formalized instructional learning where the time/geographic situation constrains learning by not affording in-person contact between student and instructor. In person education is formalized instructional learning where the time/geographic situation constrains learning by requiring synchronous person-to-person interaction.

Characteristics of Distance Education

Keegan (1995) provides a comprehensive description of distance education by proposing the following characteristics of distance education. First, according to Keegan (1995), in distance education, there is a quasi-

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permanent separation of teacher and learner throughout the length of learning process and distinguishes it from conventional face-to-face education.

Secondly, there is the influence of an educational organization both in planning and preparation on learning materials and in the provision of student support services. According to Keegen (1995), this distinguishes it from private study and teach yourself programme.

Thirdly, distance education involves the use of technical media, print, audio, video or computer, to unite teachers and learners and carry the content of the course (Keegan, 1995). Furthermore, there is the provision of two-way communication so that the student may benefit from or even initiate dialogue and this distinguishes it from other uses of technology in education. Lastly, there is a quasi-separation of the learning group throughout the length of the learning process so that people are usually taught as individuals and not in groups, with the possibility of occasional meeting for both didactic and socialization purposes (Keegan, 1995).

Another prominent feature of distance education is the profile of students involved. According to Peters (as cited in Agbofa, 2012), students usually have a greater experience of life. This is because, most of them bring considerable experience of working to academic courses and this also has an effect on the ways in which they, study in particular, when the studies and the professional experience cover the same field. Looking at the characteristic of distance education and definitions by the authors regarding the concept, distance education in this study can be defined as the kind of education in which the teacher is separated from the learners due to distance, thereby necessitating

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the use of artificial communication among teachers and learners, even though there may be limited face-to-face interactions.

Relevance of Distance Education

The advantages of distance education are many and it is not limited to the fact that distance education offers the flexible way of learning and appeals to those who are unable or unwilling to attend an educational institution on regular, scheduled basis. According to Rangecroft, Long, Tricker and Gilory (2006), distance education offers education to those in the remote locations who do not have access to more conventional forms of educational provisions. In addition, distance education especially at the post graduate level attracts students who have other demands on their time when they are in full time employments (Rangecroft, et al., 2006). Distance education also provides a mode of delivery which involves substantial up-front investment in developing course materials which provides flexible study opportunities for the learner. Distance education is also sometimes less cost effective than traditional educational learning (Rangecroft, et al., 2006).

General Challenges of Distance Education

Over a decade now, distance education has become ubiquitous in the Ghanaian educational system. Four public universities in Ghana are currently running distance education programmes in addition to some few private universities. Effective distance programme demands that strategic planning be made at all times and the planning could be done well if challenges confronting learners on the programme are identified and addressed (Ohene & Essuman, 2014). It is in this sense that Ohene and Essuman (2014) from a sample of 156 students comprising 68 males and 88 females revealed some challenges of

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distance education to include institutional, instructional, social, psychological, and financial challenges.

Similarly, Agbofa (2012) revealed from a sample of 20 teachers and 200 students making a total of 220 respondents that in the Koforidua Municipally, t students faced challenges regarding their distance education, which included inadequate modules in the UCC distance education programme, inadequate support systems for distance students and staff and inadequate motivation of tutors of the UCC distance education programme. It was recommended that authorities of UCC distance education programme needed to address these factors to improve teaching and learning (Agbofa, 2012).

In other jurisdictions, Musingafi, Mapuranga, Chiwanza and Zebron (2015) from a sample of 20 males and females students in Zimbabwe Open University (ZOU) found that distance education students are faced with a range of obstacles in their course of studies. The most reported challenges were lack of sufficient time for study, difficulties in access and use of ICT, ineffective feedback and lack of study materials. It can be inferred from literature that distance education students, teachers and the stake holders in it face some challenges, and even though the challenges they face in conducting their research were not directly mentioned, the current study tends to examine such challenges more vividly from the perspectives of the distance education students in the study area.

Meaning of Research and Educational Research

Research is a remarkable characteristic of any degree course because it provides students with an amount of control and independence on what they learn. Research offers students a chance to approve, explain, follow and find out

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new features of a topic they are keen on. According to Amedahe (2002), research is a systematic investigation to increase knowledge and/or understanding of a phenomenon. It is simply a search for answer to an unsolved and perplexing question(s) using the scientific approach. The research process entails the identification of the problem, data collection, organisation, analysis and interpretation of the results obtained with the view of solving the identified problem (Amedahe, 2002).

Pandey and Mishra (2015) suggested that research comprises of two words namely "re" and "search" which simply means to search again. Therefore, research means a systematic investigation or activity to gain new knowledge of the already existing facts (Pandey & Mishra, 2015). According to Rajasekar, Philominathan, and Chinnathambi (2013), research is also defined as the rational and methodical search for new and beneficial information about a certain problem. Neville (2007) defines research as the process of enquiry and investigation which is systematic, methodical and ethical to solve practical problems and increase knowledge.

From the view of Amedahe (2002), educational research is therefore a systematic investigation to increase knowledge and/or understanding of educational problems. That is, educational research means using the scientific methods to solve problems that confront educators and other stakeholders in education (Amedahe, 2002).

Relevance of Research and Educational Research

According to Rajasekar et al. (2013), research is relevant in scientific and unscientific fields. Globally, different problems, activities, and methods happen daily. Scientists carry out research to find out the causes, answers and

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justifications for these problems. Thus, research helps us to comprehend nature and natural phenomena. Research is also important because it offers strategies and guidelines for finding solutions (Rajasekar et al., 2013). In addition, research assists us to discover solutions for social problems because it describes social phenomena and searches for answers to social problems. Research also creates a new way and style of life and makes it enjoyable. Research on current theories and notions can assist us in recognizing and finding out the applications of these theories (Rajasekar et al., 2013).

Educational research therefore helps to understand educational problems and find solutions to them (Amedahe, 2002). Educational research helps to discover strategies and guidelines to better understand educational issues and develop and/or modify existing theory to improve educational practice. In particular, educational research helps to discover new trends and contribute scientific knowledge to understand educational issues (Amedahe, 2002).

From the general perspective, Educational research is a more formal, focused and an intensive process of carrying out a scientific method of analysis. The main purpose of educational research is focused on scientific investigation and provides solutions to the problems in the field of education. Research in education represents an activity, directed towards the development of an organised body of scientific knowledge about the events with which educators are concerned. Educational research is the part of behavioural sciences, in which, emphasis has been put on understanding, explaining, predicting and to some degree controlling human behaviour. Research in education is the use of the methods of scientific analysis to produce information, needed to make

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improvements in educational planning, decision making, teaching and learning, curriculum development, understanding of children and youth, use of instructional media, school organization and education management (Neville, 2007.).

Research in education has enabled substantial progress to be made in curriculum development and reform, educating slow learners, understanding the psychological traits of the physically challenged individuals and in adapting methods of instructions to the needs of individual learners (Neville, 2007). Research in education has rendered an imperative contribution in acquiring information regarding different cultures, norms and values. The individuals have made substantial contributions through research to their knowledge and generation of awareness, understanding administrative leadership and behaviour, group procedures, classroom atmosphere, interaction analysis, self-concept, levels of aspiration, deprivation and racism, educational inequality and the deprived, marginalized and socio-economically backward sections of the society.

The need for research activities becomes imperative, which will support education to achieve its goals and objectives, rebuild confidence in public schools, adapt to cultural diversity, educate for self-identity and individual realization, re-establish faith in human, moral and democratic values, bring about changes in racial attitudes, achieve the goals of quality and relevance, and meet the challenges of the future world of accelerating scientific and technological change (Neville, 2007).

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Overview of the Types of Research

The following types of research have been identified by Pramodini and Sophia (2012):

Fundamental/Basic Research

This type of research is basic, which aims at developing knowledge. Fundamental research is usually carried out in a laboratory or other sterilized environment, and sometimes even with animals. This type of research does not have any immediate or planned application, may later result in further research of an applied nature. Basic research comprises the development of theory and it is not concerned with practical applicability and most closely bear a resemblance to the laboratory conditions and controls generally associated with scientific research. It is concerned with instituting the principles of learning. For example, much basic research has been conducted with animals to determine principles of strengthening and their effect on learning. Such experiments include but not limited to the experiment of Skinner on cats which gave the principle of conditioning and strengthening. According to Pramodini and Sophia (2012), the essential aim of basic research is to expand the boundaries of knowledge without regards to practical application. The findings may ultimately apply to practical problems that have social value.

Applied Research

This type of research aims to solving an immediate practical problem. Pramodini and Sophia (2012) point out that applied research is carried out to provide solutions to a direct practical problem and the objective of making additions to scientific knowledge is secondary. It is the research performed in relation to concrete problems and under the conditions in which they are found.

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Through applied research, educationists are often able to provide solutions to their problems at the appropriate level of complication, this is, within the classroom teaching-learning processes. The applied research may also be employed at a university or research institute or may be found in private industry or working for a government agency. In the field of education, such a person might be employed by a curriculum publishing company, a state department of education, or a college of education at a university.

Applied researches are also found within the settings, in which the application or the role of the practitioner is primary. This is where the teachers, clinical psychologists, school psychologists, social workers physicians, civil engineers, managers, advertising specialists and so forth are found. Most of the individuals receive training regarding the implementation of research, and they use this knowledge for two purposes. Firstly, to help practitioners understand, evaluate, and use the research, produced by basic and applied researches in their own fields. Secondly, to develop a methodical way of addressing the practical problems and questions that take place as they are engaged in their professions (Pramodini & Sophia, 2012).

Action Research

Research designed to reveal operative ways of dealing with problems in the real world can be referred to as action research (Pramodini & Sophia, 2012). This kind of research is not confined to a particular methodology or paradigm. The purpose of action research is to provide solutions to the problems that occur within the classroom setting, through the application of scientific methods. It is concerned with a local problem and is conducted within a local setting. It is not concerned with whether the results are generalisable to any other setting and is

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not characterised by the same kind of control evidence in other categories of research. According to Neville (2007), the primary purpose of action research is providing solution to the given problem, and not contribution to science. Whether the research is conducted within one classroom or many classrooms, the teacher renders an integral contribution towards the processes. The more research trainings the teacher involved have had, the more likely it is that the research will produce valid, if not generalizable outcomes.

The value of action research is limited principally to those, who are conducting it. Despite its weaknesses, it does represents a scientific approach to problem solving that is noticeably recovering than change based on the supposed efficiency of inexperienced procedures, and substantially better than no changes at all (Pramodini & Sophia, 2012). As indicated by Asamoah-Gyimah and Anane (2019), action research provides the means by which concerned school personnel can make efforts to improve the educational process, at least within their environment. In this kind of research, true progress requires the development of sound theories having insinuations for many classrooms, and not just one or two. One sound theory that includes ten principles of learning may eliminate the needs of hundreds of would-be action research studies. Given the current status of educational theory, however, action research provides direct answers to problems that immediately require theoretical solutions. In particular, this type of research is the one that is required by undergraduate students who are receiving training to become teachers , hence its relevance.

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Quantitative Research

Quantitative researchers need to design measures of constructs like apprehension, astuteness or contentment in order to provide precise and relevant statistical results. This could mean designing context sensitive mechanisms for research within a particular place, region or setting, or it could mean designing mechanisms that can generate significant and comparable results over many different frameworks (Creswell, 2012). The meaning of these results and the comparisons between them are placed on the quality of the measures used and the extent to which the test designers flourished in the formulation of questions, which were pertinent to students in different cultural frameworks.

Qualitative Research

Pramodini and Sophia (2012) stipulate that qualitative research involves non-numerical information and primarily takes place through interviews. The confirmation of truth claims involves logic and methods, which may not be strongly appropriate, but the values underlying such claims, and the motivation for researching certain questions, do spring from framework. In terms of conducting research, one in the field needs carefulness, uprightness, morality, precision, time and perseverance, with the methods of data collection and analysis, one's interpretations and language. These things apply correspondingly, though with different details, to radical post-modernist feminist researchers and to positivist statisticians. These are needed to realize one's individual endeavouring for meaning through contributing to and connecting with diverse communities of researchers, teachers and learners, and with the marginalized. The quest for meaning is like a lamp, illuminating the passages and turning points as the researchers make their way through

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multifaceted and diverse settings, questions, methods and knowledge (Pramodini & Sophia, 2012). Pramodini and Sophia (2012) have further suggested the following as specific types of educational research:

Descriptive research which provides information about the circumstances, situations, and procedures that occur in the present. For example, a survey of the physical condition of school buildings to create a descriptive profile of the facilities that are present within the school environment.

Co-relational research involves the search for relationships between variables through the utilisation of various measures of statistical association. For example, an exploration of the relationship between teachers' satisfaction with their job and various factors defining the establishment and eminence of teacher accommodation, pay and reimbursements, leave entitlements, and the availability of classroom supplies.

Causal research aims to recommend causal connections between variables by observing existing phenomena and then searching back through available data in order to try to recognize plausible causal relationships. For example, the study of factors that increase the rate of drop out amongst the students from secondary school, make use of the data obtained from school records over the past decade.

Experimental research is used within situations, where variables defining one or more causes can be operated in a methodical manner to distinguish the effects on other variables. For example, an analysis of the effectiveness of two new textbooks using random assignment of teachers and students to three groups or two groups for each of the new textbooks, and one group as a control group to use the existing textbook.

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Case study comprises of an in-depth study of a particular student, classroom, or school with the aim of producing a nuanced description of the encompassing cultural setting that affects education, and an account of the communications.

Research and the Classroom

The practicing teacher just like the undergraduate distance education students of the study area must have the innovative ability to blend traditional theory with novel strategies, and research findings with practical classroom experience (Khan, 2012). Research leads to theory building, and that theory alone will not yield any results as effective teaching. The modern teacher has to evolve a model or module based on the research findings so that desired changes in the behaviour of the students can be seen especially in the case of action research.

According to Khan (2012), effective teaching, therefore, utilises the practical application of new research/theory in a classroom setting. In this regard, classroom teachers need to know what content and skills are important enough to remember and to develop before they plan lessons and units of study. In terms of both skills and content, they must distinguish between what is worth being familiar with, important to know and do, and enduring understandings (Khan, 2012). The enduring understandings are what is essential, what the teachers want the students to know and do once the course is completed; once the students leave the classroom. Important assessment tasks should be connected to these understandings and educational research is key in achieving this purpose.

General Research Process

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According to Charburn (2011) and Creswell and Plano-Clark (2011), the research process includes the following:

Identification and statement of the problem: the first step in research and educational is pinpointing the topic or problem of interest. Researchers normally start with a vague idea of some problem and then slowly try to refine the idea into a concise statement (Charburn, 2011). They review studies relevant to the problem to further illuminate the problem and refine the research questions. It should be pointed out that a strong statement is one supported by a thorough review of relevant study results and a strong rationale or justification for conducting the study (Charburn, 2011; Creswell & Plano-Clark, 2011).

The next process is generating a hypothesis or formulating a research question (Creswell & Plano-Clark, 2011). These are precise statements or questions of the research problems. A hypothesis is a prediction of what is expected to occur, or a relationship expected between concepts of interest (Creswell & Plano-Clark, 2011). The hypothesis is typically tested with some form experimentations but not all studies demand testing of hypothesis. According to Creswell and Plano-Clark (2011) some studies ask more general questions about the problem of interest.

The review of relevant literature or studies also forms part of the research process. A thorough search of literature is an important component of the research process. The review involves the collection and summary of prior studies that are relevant to the hypothesis or research questions (Creswell & Plano-Clark, 2011). This process assesses what us already known about the problem and refines research questions for extending ideas in the field of study. The important focus should be the determination of what the study will add to

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what is already known (Charburn, 2011). The review also provides ideas of what methods and instruments can be used to collect the data needed for the study (Charburn, 2011).

Sample and instrumentation are also important processes in the journey of research. According to Charburn (2011), if the study involves human subjects, then sample means a group of people from which data will be collected for the study. If the study is analysing secondary data collected by another investigators, then the sample is the data sets. Usually, the sample is a group of people representing a target population and the population is the larger group to whom the results are to be generalized (Creswell & Plano-Clark, 2011).

Another research process from the view of Creswell and Plano-Clark (2011) is instrumentation. These are the tools that collect and measure data. The selection of the tool depends on the focus and type of research study that is being conducted. Each tool that will be used to collect data should be as reliable as possible and measure the intended concept.

Another important process of the research report is data analysis. The process involves the use of statistical techniques to summarize and interpret relevant research result (Amedahe, 2002). Basic statistics such as measures of central tendency, dispersions and prevalence are part of every quantitative research study. Inferential statistics are also used to test hypothesis. The main objective of the data analysis according to Charburn (2011) is to answer the research questions or test hypothesis and based on the analysis results, conclusions are drawn and interpreted in the context of previous studies (Charburn, 2011). A more generalized version of the educational research process as indicated by the Educational SAGE (2016) is shown in Figure 1:

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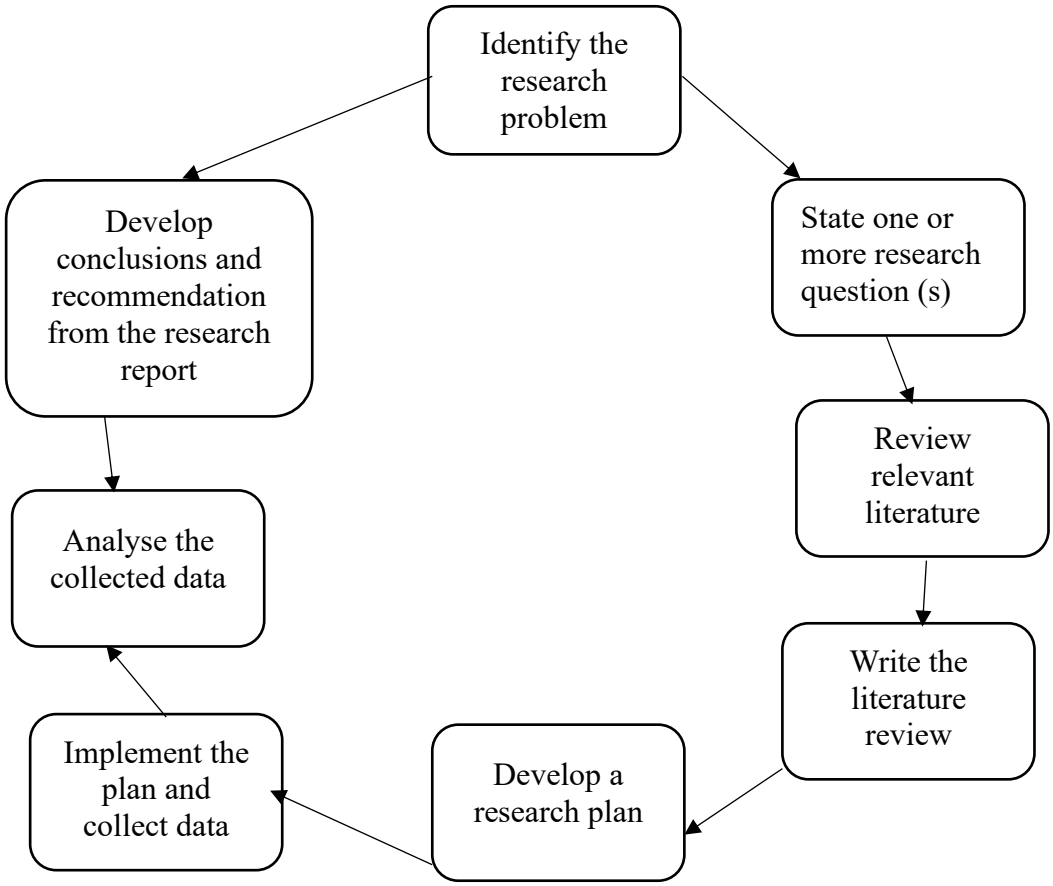

Source: Adapted from SAGE, (2016)

Figure 1: educational research process

Although these research processes as indicated above are subjective, students who are required to go through educational research ought to go through these research processes for a successful conduct of their project work.

Features of Educational Research

The following are the features of educational research as indicated by Bulterman-Bos (2008) and Pramodini and Sophia (2012):

i. Educational research is purposeful: when research is conducted in the field of education, it has a purpose. The purpose may be to acquire understanding of particular area, region or state concerning some matter or an issue. Therefore, data is collected and appropriate methods are

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utilised to conduct an analysis. The analysis of the data is an imperative process to generate the findings.

ii. It deals with educational problems which involves students and teachers as well. Within the classroom setting and within the school environment, there are various issues and concerns that are experienced by the teachers and the students. These may be concerned with the teaching-learning methods, instructional strategies, infrastructure, understanding academic concepts, performance evaluation techniques and so forth. Therefore, educational research is concerned with conducting an analysis of these areas, finding the flaws and inconsistencies and implementing measures to improve them.

iii. It is precise, objective, scientific and a systematic process of conducting investigations (Bulterman-Bos, 2008). Educational research does not just involves viewing areas and conducting investigations, but it involves conducting analysis and investigations in a specific, accurate, methodical and an organized manner. The individuals conducting research are required to possess relevant information regarding the methods used in research. Educational research can be used to provide assistance to the educators to observe that the impact of particular types of teaching and learning processes depends upon the subject matter to be learned in relation to the skills, knowledge and attitudes that learners bring into the learning environment and the purpose of learning and the assessments used to measure that learning relative to those objectives (Bulterman-Bos, 2008).

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iv. Educational research attempts to organize data in a quantitative and qualitative manner to arrive at statistical inferences. Quantitative and qualitative are the two forms of research. Quantitative involves the use of numerical information, whereas qualitative involves the use of non-numerical information. It is vital for the researcher to make adequate selections of these methods on the basis of the areas of research and the regions in which it is being conducted.

v. It discovers new facts in new perspectives, i.e. it generates new knowledge. There are primarily three ways of conducting research. First, it can be conducted through the use of books, articles, documents, and internet. Through these sources, one can read, and analyse the information obtained in an appropriate manner. Second, it can be conducted through interviewing techniques, one can communicate verbally with others to obtain information. Person from whom information is obtained can be within or outside the educational institutions, from whom information is obtained. Third is termed as field research, in this case, information is obtained from various sources within the field. The sources may include, individuals or by taking notes from the field by observing things. Interviews and surveys are the primary areas that are made use of to obtain information.

vi. It is based on some philosophic theory. In most cases, research in education are based on some philosophic theories. The theories that are included in this research may be logical, rational, ethical, moral and theoretical. Education is a comprehensive field, hence, there may be

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variations in the areas and regions regarding various aspects. Hence, the philosophic theories are based upon these aspects.

vii. It depends on the ability, resourcefulness, creativity and experience of the researchers for its interpretations and conclusions. In higher educational institutions, when the individuals are working on projects, they are required to conduct research and analysis. When implementing this task, it is vital for the individuals to possess the competencies and skilfulness to carry out the job in an appropriate manner. Lack of skills and expertise would not generate the desired outcome.

viii. It needs interdisciplinary approach in providing solutions to educational problems. There are various kinds of problems and challenges that exist in conducting research in education. For instance, problems in obtaining the needed information from books and articles, negative responses from the individuals in the field, refusals on their part in filling out the survey questionnaires and showing reluctance in communicating in an adequate manner with the researchers. Therefore, it is vital to make use of interdisciplinary approach in providing solutions to various kinds of problems.

ix. It demands subjective interpretation and deductive reasoning in some cases. When data is collected through utilization of appropriate research methods, it is obtained in an unorganized form. Hence, it is vital to organize it in an appropriate manner and interpret it. In quantitative data, the software called Statistical Package for Social Sciences (SPSS) is mainly used to process data for analysis, hence, it is essential to ensure that the information obtained is suitable for analysis.

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x. In education, research is primarily conducted within classrooms, schools, colleges, universities, department of education and so forth. It may be conducted on an individual basis, but in most cases, two or more persons are involved in research. In pursuance of doctoral programmes, the research project is a joint collaboration of the researcher and the supervisor. For instance, when a person is working on a research project regarding societal problems, then he would have to do field visits in particular regions to find out what kinds of problems exist within the society.

xi. Experienced teachers, who return to universities to attain graduate degrees, quite often regret that their new role as a researcher puts emphasis upon the value of abstract, intellectual activities, often in seclusion from the more human component, they came across while teaching. The differences between the scholar's view of education and the practitioner's view of education often lead to hindrance, in which the doctoral students would encounter the whole research enterprise (Bulterman-Bos, 2008).

Overview of the General Challenges of Research in Education

It is an undeniable fact that the learning and teaching experience needs to be based upon research and evidence, but it is at the risk of being any one of theory, thought, philosophy, suitability and prejudice (Bulterman-Bos, 2008). The main purpose of research in education should be to liberate, and encourage equality, egalitarianism and equality of opportunity. However, one general challenge of research in education as opined by Bulterman-Bos (2008) is that ideology can be hazardous and precarious in making provision of academic

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skills and contributing towards skills development, growth and progression of the students.

Undoubtedly, students are the future citizens of the country and youth can render an effective contribution towards the progression and development of the community and the nation, if they are adequately trained and development of skills takes place in an appropriate manner. Teachers have a social responsibility to develop dynamic citizens by providing them efficient knowledge and information. It is an imperative role of the teacher to generate awareness among the individuals. Following a philosophical route limits choice, which is the opposite to the real purpose of education.

What is been taught in an age gone by new theories and technological advances have occurred, and are taking place through research. Pramodini and Sophia (2012) argue that basing one's practice solely on own learning experiences, without reflection, means education runs the risk of being out-of-date, invalid and not being progressive. As learners go through their learning and research experiences, learning become complicated and success is influenced by a multitude of factors, including social backgrounds, family backgrounds, personality, age, gender, location and so forth.

The argument is that through research, theories needs to be shared, tested and challenged to permit researchers to familiarise to suit local and personal environments (Pramodini & Sophia, 2012). With reference to the concept of suitability and manageability, there are always challenges as teachers in schools and higher educational institutions are required to control the attitudes, behavioural traits and workings of the individuals. They are required to ensure

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that students have adequately mastered the research strategies that have been provided by them which to a larger extent is very difficult a task to accomplish.

It should be pointed out that learning new things and new ways of behaving can be uncomfortable, especially in the initial stage, therefore, it is vital to implement effective teaching-learning processes and ensure students have acquired efficient understanding during the conduct of research. It is not enough to create a base of teaching and learning around convenience. Although there are challenges, research have been assisting to the individuals to understand what kind of strategy would be applicable in what kinds of situations, what are the short- and long-term inferences, provide an explanation and validation for decisions and actions, help to build a repertoire to help deal with the unanticipated, recognize problems, possess adequate knowledge, make improvements and so forth.

Challenges Students Face in Conducting Research

There are numerous challenges that are faced by students and in this regard distance education students in conducting research. For the purpose of this study, the challenges are limited to those that come as a result of the students themselves, supervisors and the institutions within which the students are.

Student-related challenges

Several factors have been noted as challenges students face in conducting their research. Prominent among these factors as suggested by Pearce (2005) and Anderson et al. (2006) are lack of time, lack of money, lack of commitment and motivation to do the research, lack of adequate theory in the area being researched on, and students' failure to meet regularly with the supervisor and family problems/commitments.

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Lack of time

According to Pearce (2005), distance education students do not dedicate he required amount of time needed to execute their research work and their studies in general. This is due to the fact that majority of the students who are on the distance education programmes are workers and parents who may not have the time needed to go through the rigorous scientific nature of educational research (Pearce 2005). Gleaning from this, when students are do not devote the needed time of inquiry into educational research, they may end up doing nothing since research means time, and time should be invested in the inquiry of the problem at hand (Bell, 2000).

Lack of money

Students' lack of money to conduct their research also serve as challenge to them. Anderson et al. (2006) stressed that the conduct of a meaningful research comes with a cost which can be high, medium or low. The cost results from numerous printings, data analysis, stationaries and other needed materials to the conduct of research. According to Bell (2000), students are faced with monetary problems when comes to raising income and dedicating it into their research which causes a challenge to conducting the research.

Lack of commitment and motivation

Other important factors that serve as a challenge student face in conducting their research have to do with students' commitment and motivation. It should be pointed out that commitment is needed for everything Which includes conducting meaningful educational research. Where there is commitment, there is motivation, and when there are both, they facilitate the achievement of task. According to Anderson et al. (2006) and Bell (2000), when

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students are not committed and motivated (both intrinsically and extrinsically) there is no way they will invest their time, money and other resources in their research experiences. Clearly, when these commitments and motivations are not made on the part of students, which can be as results of many other factors that could originate from the immediate environment of the students, a difficulty in executing a meaningful research will be encountered.

Lack of adequate theory in the area being researched

According to Anderson et al. (2006), content knowledge in research and conducting it are very crucial in the research process. Undoubtedly, if one does not have the required knowledge, skills, abilities and competencies to use the scientific process to provide solutions to a problem, he or she will fail to conduct his or her research work. The lack of knowledge could be as a result of lack of understanding in research courses leading to lack of understanding in the general research process (Anderson et al., 2006).

Students' failure to meet supervisors and family problems/commitments

Students also have challenges in meeting their supervisors on time due to other family problems and commitments. According to Rangecroft, et al. (2006), distance education is done when learners and instructors are separated from each other and meet on few occasions. Due to this there is always the difficulty in meeting students especially at the research stages due to the remoteness of the students to the preferable place of meeting and other family commitments. It is against the background of such student-related factors that we were prompted to find out the degree to which the foregoing challenges are evident regarding the distance education students in the study area.

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Supervisor-related challenges

Studies such as Pearce (2005), Nyawaranda (2005) and Chabaya, Chiome and Chabaya (2009) have highlighted some supervisor-related challenges which affect distance education students when conducting their research work**.** The challenges include few meetings with students, lack of interest in students' topic, little or no practical help and direction, failure to return students' work promptly, lack of research experience and relevant research skills and or knowledge.

Few meetings with students

This has been one of major supervisor related challenge distance education students face when conducting their research (Nyawaranda, 2005). According to Nyawaranda (2005), supervisors are always burdened with a wide variety of academic task and as a result have no or very limited time to meet and supervise their students' research work. Although they can schedule a time with their students, they (students) can travel from distance jurisdictions and may not meet their supervisors. This when done a couple of times affect the general supervision of the work and consequently pose a problem to students such as their inability to finish their work on time.

Lack of interest in students' topic

Another factor which according to Chabaya et al. (2009) serve as challenge to distance education students and students in general is the lack of interest in students' topic. Although studies have shown that research work begins with a problem (Amedahe, 2002; Rajasekar et al., 2013), some supervisors feel that students must present a topic at their first meeting without asking them about the problem. This exposes supervisors to scanty information

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on the research interest of students and consequently, when the supervisors have no or little interest in the topic, it ends the research process or students are told to re-submit another topic. The issues of no interest in the topic can happen for a number of times which consequently demotivates the students in the research process.

Little or no practical help and direction

Nyawaranda (2005) contended that some of the supervisors who are assigned to supervise their students' research work themselves have no or little knowledge in research or the problem at hand. When this happens, it will leave the supervisor no or little practical help or direction for the student. The lack of knowledge in research and/or the problem could serve as the basis for the lack of interest in students work (Pearce, 2005). Conclusively, the supervisor will have no expert guidance and direction as well as scholarly views to mentor and lead the students in their research experiences which serve as a challenge to students.

Failure to return students' work promptly

Another important challenge students face in conducting their research work is failure of their supervisors to return their work promptly. From the views of Rajasekar et al., (2013), supervisors are supposed to provide expert suggestions and direction to students' research work. In several instances, due to the lack of time, commitment, dedication and other unknown factors, supervisors fail to vet and return students' research work on time. In several instances, students are ready to work on their research reports and finish on time, but they are delayed by their supervisors due their (supervisors) personal reasons. Not only does this situation contributes to the delay of the research

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work, it could lead to the lack of commitment and motivation on the part of students and consequently see the supervisor as irresponsible (Nyawaranda, 2005).

Lack of research experience and relevant research skills/knowledge

Just like students, some supervisors also lack the necessary research experience and relevant research skills/knowledge to guide their students (Anderson et al., 2006). It should be noted that content knowledge in research and how to guide students through the research journey are skills that supervisors need. When a supervisor lacks these essential and fundamental traits in research and the entire research experiences, students face problems in their conduct of research.

It can be inferred from the literature on supervisor-related challenges that there are numerous supervisory problems that affect students in conducting their research work. As a researcher, I am of the view that failure to consider solutions to the above challenges would compromise the quality of students' research work at the study area.

Institutional-Related Challenges

Apart from student and tutor-related challenges, Shumba (2004), Nyawararnda (2005), Thondhlana et al. (2011) and Pearce (2005) concur that students' capacities to conduct research are constrained by some institution-related challenges. The factors include inadequate courses in research methods, inadequate time to complete research work, lack of exposure of supervisors to research skills and lack of research materials

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Inadequate courses in research methods

At the undergraduate level of education, students are exposed to a three credit hour course in research methods. It should be pointed out that at times, the time dedicated to teaching and learning of research methods is inadequate for students to understand in details research methods and write a good research report thereof. When students are not lucky and meet a lecturer who is not well-vexed in research methods, the limited time will be not duly utilized and students are likely not learn nothing in the research experience. It is in this regard that Thondhlana et al. (2011) stressed that the lack of adequate courses in research methods as offered by the students serves as a challenge for the students. This is because, the inadequacy of the research methods' courses leaves them no or little knowledge to conduct research work on their own.

Inadequate time to complete research work

Another factor that serves as a challenge to students in conducting their research has to do with time. According to Shumba (2004) and Nyawararnda (2005), the time factor in research is extremely important for the conduct of a meaningful research. In the Ghanaian universities, students are bounded with time to complete their research work. Most at times, time given becomes inadequate due to delay from their supervisors and other factors that result from the students. In most cases, students tend to read on their own to get a better understanding of the conduct of research work because they were not taught well or due to inadequate courses in research methods. These situations eat into the time that is required for students to complete their work.

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Lack of supervisors' exposure to research skills

This tend to be one of the challenges in that, according to Shumba (2004), tertiary institutions whose students conduct research fail to give their supervisors some form of research orientation to sharpen their skills. Shumba (2004) noted that exposing supervisors to research skills by organizing orientations is important because it will serve as a point of recall regarding the necessary skills they might need to supervise their students. They can also be told as part of enhancing their skills to use the standardized and required research manuals and materials needed to be used for effective supervision and guidance (Shumba, 2004).

Lack of research material

The research materials include but not limited to computers and internet facilities in the institution. This has to do with the provision of computers with uninterrupted internet facilities and other resources such as library by the institutions to supervisors and students. The provision of these materials will enhance the flow of communication between supervisors and students on constant basis, and to search for the needed information about their work (Shumba, 2004). Where there are libraray facilities, both students and even supervisors can get the chance of finding out information about their work as reference materials. The absence of these resources will expose students to problems that will hinder the conduct of their research works.

Ways to Solving the Challenges Students Face in Conducting Research

According to Punch (2004), if immediate and lasting remedies are not found to address the research challenges students and for that matter undergraduate students face, their academic pursuits cannot be achieved

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meaningfully. The following remedies as suggested by Punch (2004) would cure the challenges distance education students face in conducting their research:

1. There is the need for both students and supervisors as well as institutions to plan properly even before the commencement of the research experience.
2. There is the need for the development of patience by supervisors and students
3. There is the need for improvement of documentation and support for students and supervisors.
4. Adequate courses in research methods should be added and the content thereof should be taught well by research methods lecturers or tutors to enhance the understanding of students.
5. Supervisors are encouraged to learn and give adequate guidance to their students. Students are also encouraged to have positive self-esteem and be encouraged they must worker harder.
6. Lastly, there is the need for students to developing a proper plan which will serve as a guide to the entire research experience.

Conceptual Framework

The conceptual framework of the study was designed based on the concepts as well as the variables and the questions of the study. The rationale was to clarify the relationship between the variables (challenges undergraduate students face in conducting their research which include students'-related challenges, supervisor-related challenges and institutional-related challenges). The relationship between the individual variables is shown in Figure 2.

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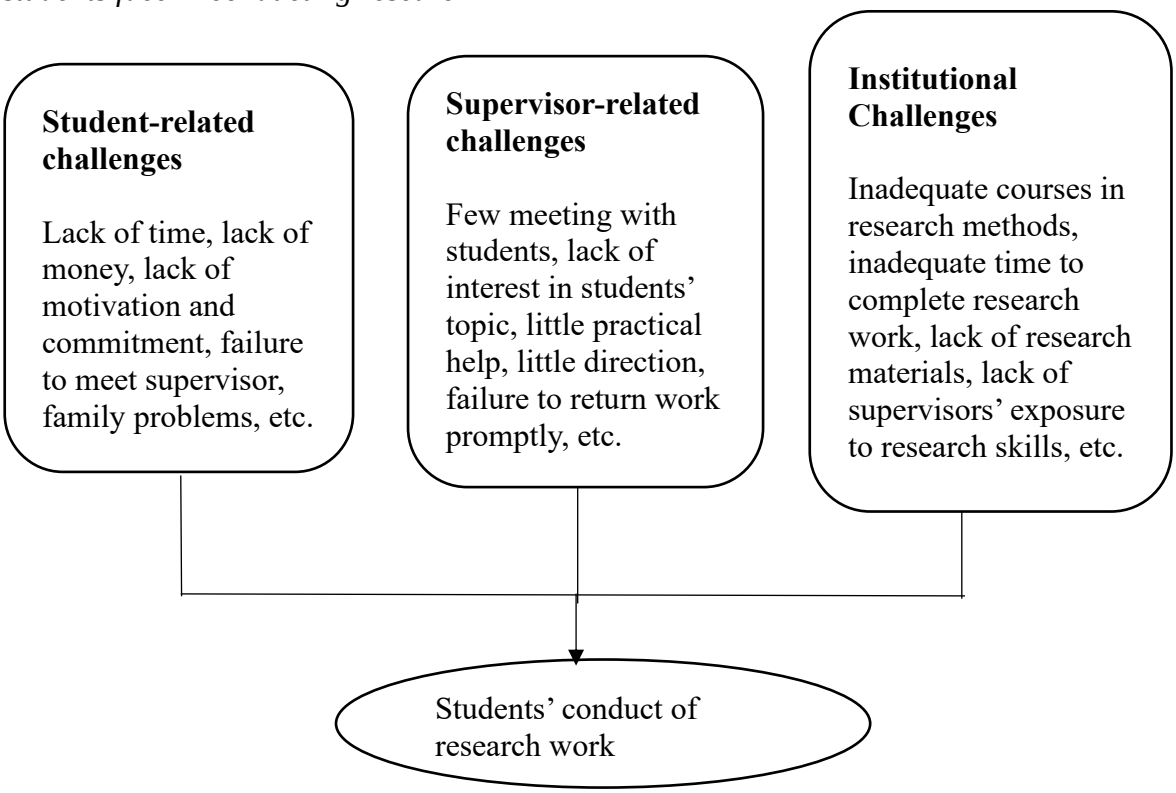
Conceptual framework on the challenges distance education undergraduate students face in conducting research



Source: Author's own construct, (2019)

Figure 2: Conceptual framework on the challenges distance education undergraduate students face in conducting research

It can be inferred from figure 1 that the variables which serve as challenges to students in conducting their research work, include student-related challenges such as lack of time, lack of money, lack of motivation and commitment, failure to meet supervisor, family problems, etc.; supervisor-related challenges such as few meetings with students, lack of interest in students' topic, little practical help, little direction, failure to return work promptly, etc., and institutional-related challenges such as inadequate courses in research methods, inadequate time to complete the research work, lack of research materials, supervisors' lack of exposure to research skills, etc. will affect the way students conduct their research.

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Empirical Review

Mapolisa and Mafa (2012) conducted a study on the challenges being experienced by undergraduate students in conducting research in open and distance learning. The purpose of the study was to examine the challenges that undergraduate students face in conducting research in Harare and Bulawayo regions of the Zimbabwe Open University. The study was motivated by the realisation that, a good number of postgraduate students encounter challenges when conducting research and thus, motivated the researcher to investigate the causes of such challenges and addressed them. The paper used the descriptive survey, focus group discussions and document analysis. Random and purposive sampling were employed to select 45 Bachelor of Education (Educational Management) students. The gathered data was analysed and interpreted thematically.

The study Conducted by Mapolisa and Mafa (2012) study came up with three categories of some of the challenges that undergraduate students in the studied regions of the ZOU experience in their conduct of research. They comprised tutor, student and tutor- related challenges. The intitution-related (supervisor) challenges included lack of research interest and experience, tutor absence from work and failure to return to work promptly. Critical student-related challenges were lack of money, time, library resources and family problems. All institution-related challenges (lack of internet facilities, lack of research-related courses, lack of library resources, and lack of computer literacy and lack of workshops) negatively impacted on the studied students' capacities to conduct research (Mapolisa & Mafa, 2012).

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It can be inferred from the findings of Mapolisa and Mafa (2012) that factors that result from the students, supervisors or tutors and the institutional at large serve as a challenge to students when conducting their research in the study area. These factors are consistent with the variables that have been revealed in literature by several authors. Although the sample size that was in Mapolisa and Mafa's (2012) study was relatively small, it can still be generalised and be used in that they combined interviews and some form of document analysis which might have given an in-depth description and observation of the phenomenon under consideration.

In other related studies, Mafenya (2014) conducted a study on challenges faced by higher education institutions in research skills development using the South African open and distance learning as a case study. The author contended that while there is a huge literature on research in higher education on various topics of interest, there is scant literature on the challenges facing research skills development for our students in South Africa and especially distance education students. The study therefore used Nonaka's (1994) organizational knowledge creation theoretical framework to better understand the study variables.

According to Mafenya (2014), the theoretical framework was regarded as the most suitable because of its ability to respond to the research question and the objectives that were set for the study. Data was collected from a dual mode conventional face-to-face institution and a single mode distance education university during the 2012-2013 academic years. This study was conducted from a phenomenological research perspective because the intention was to search for variation in ways of understanding a phenomenon amongst a sample

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group that was selected for maximum variation. The study revealed that financial resources, lack of institutional collaboration, low postgraduate enrolments and disconnection between teaching and research were some of the challenges faced by higher education institutions in research skills development in South Africa.

Alsied and Ibrahim (2017) conducted a similar study on the challenges encountered by EFL Libyan learners in research teaching and writing. The goal of the study was to investigate the major challenges in research writing faced by Libyan EFL learners at Sebha University and also explores Libyan teachers' (supervisors) attitudes towards their students' research work. Through the mixed method which allows for the usage of both quantitative and qualitative data, a total of 42 students and 4 teachers formed the sample of the study.

The findings of the study of Alsied and Ibrahim (2017) revealed that Libyan EFL learners had difficulty developing a research project and reporting the findings. The former requires them to identify the area of interest, choose a topic and formulate a researchable problem while the latter typically involves writing a literature review, the methodology, results and discussion sections. Between the two tasks, the students found academic writing the most challenging. It was also found that Libyan teachers (supervisors) had negative attitudes towards their students' research. Specifically, the following attitudes were revealed by the teachers: insufficient background knowledge about research, lack of library resources, and inadequate number of courses related to research. Other factors include the unavailability of internet in the college and lack of motivation.

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Nzama (2013) conducted a similar study on the challenges faced by the department of information distance undergraduate students when conducting research. The ultimate aim of the study was to establish the challenges that the students experience in doing research. For the purpose of the study, both quantitative and qualitative methodologies were used and data was gathered by using questionnaires and interviews. Through purposive sampling, 29 distance education students, 6 supervisors and 2 lecturers were sampled to respond the instrument for the study. The data gathered was analysed by using frequencies and percentages. The findings of the study revealed some challenges from students and supervisor/lecturers to include lack of time and skills, huge workload, and problem in reaching a conclusion and making recommendations. Other problems include grammatical errors, research proposal drafting, finding respondents, referencing and plagiarism.

Chapter Summary

It can be inferred from the conceptual review and the empirical studies that have been revealed that a lot of factors come together to serve as challenges distance education students face in the conduct of their research work. A careful analysis of the review shows that the challenges originate from the students, supervisors and the institutions within which the students find themselves. Prominent among these challenges are but not limited to lack of time, money, research materials, and so on.

Specifically, it has been domesticated those studies have been conducted in the western world to find out the challenges undergraduate distance education students face when conducting their research. Unfortunately, in Ghana, it appears there is no study that considered that direction. It is evident from the

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review that the studies conducted in Ghana on distance education covered other challenges distance education students face to the neglect of their research challenges.

From the case of the distance education students in Ghana and specifically those in the Northern Region of Ghana, it is unclear which student, supervisors or institutional related challenges are faced by the students in the conduct of their research. Looking at the relevance of research which is part of the completion requirement of these students, there is the need to s explore the challenges that originate from the students themselves, their supervisors or the institution they find themselves. It was in this sense that a study of this nature became necessary.

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CHAPTER THREE

RESEARCH METHODS

The study explored the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The section describes the research design, study area, population, sample and sampling procedures, data collection instrument as well as data collection and data analysis procedures. Ethical issues that were considered in the study were also discussed.

Research Design

The study used the descriptive research design with quantitative approach. The descriptive survey research design objectively allows for accurate description of activities, objects, processes and persons. As noted by Amedahe (2002), the purpose of descriptive survey is to describe and document aspects of a situation as it naturally occurs. Descriptive survey therefore has the ability to collect data about groups of individuals possessing some identified features, behaviour, perceptions and beliefs by questioning and further analying the responses concerning their current status (Creswell, 2014). Descriptive survey research has the ability to obtain data regarding persons or groups of persons who possess some identified features, perceptions, behaviours, and beliefs with questioning and soliciting of responses concerning the current status of the subject of the study.

In essence, the study used the descriptive survey research design with quantitative approach in achieving the purpose and objectives of the study. The quantitative approach involves the process of employing objective measure to a numerical data with the view of demonstrating the relationships existing

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between variables (Creswell, 2014). Researchers employ quantitative methods to assess the magnitude and frequency of constructs to explore meaning and understanding of constructs (Creswell & Plano-Clark, 2011). Quantitative approach as a characteristic of descriptive research involves the use of numerical analysis of hypothesis formulation and testing or formulation of research questions and seeking answers to them (Creswell, 2014).

Looking at the purpose and objectives of the study, the design is relevant in that the study seeks to solicit and describe respondents' views, behaviour, perceptions and beliefs on their current status on the challenges they face when conducting their research as they naturally occur. In addition, the design is necessary for the study in that the researcher desires to assess the magnitude and frequency of such challenges student face in conducting their research work by using numbers to explore meaning and understanding of such constructs. However, it must be pointed out that descriptive survey design has some disadvantages such as the difficulty in asking follow-up questions on respondents' responses as compared to the use of interviews but looking at the purpose and the objectives of the study, descriptive survey research design is deemed most appropriate.

Study Area

The history of the Northern Region as part of the modern state of Ghana started with the aim of conquering and colonising the land carved out by the European powers at the Berlin Conference in 1844 for the British (Ghana Statistical Service, 2010). The eastern boundary of the British colony was marked by the Volta River in the south and extended north along the Daka River and until Germany lost World War I and all its African possessions, the whole

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of the northern half of the country was a big region called Northern Territories (Ghana Statistical Service, 2010).

According to Bening (as cited in Ghana Statistical Service, 2010), the Coussey Committee in 1949 recommended that the Protectorate of the Northern Territories, a portion of Northern Section of Togoland and beyond the Krachi District should constitute one region. This was because of the intimate connections between the peoples of the two areas. This suggestion was implemented in 1952 and with the attainment of political independence, the Protectorate and the Northern Section of Togoland became the Northern region of Ghana in March 1957.

The Northern region occupies an area of about 70,384 square kilometres and is the largest region in Ghana in terms of land mass. It shares boundaries with the Upper East and the Upper West regions to the north, the Brong Ahafo and the Volta regions to the south, Togo to the east, and Côte d'Ivoire to the west (Ghana Statistical Service, 2010). The land is mostly low lying except in the northeastern corner with the Gambaga escarpment and along the western corridor. The region is drained by the Black and White Volta Rivers and their tributaries such as the Nasia and Daka rivers. The climate of the region is relatively dry, with a single rainy season that begins in May and ends in October. The amount of rainfall recorded annually varies between 750 millimetres and 1,050 millimetres.

According to the Ghana Statistical Service (2010), there are four paramount chiefs in the region and they are Ya-Na, who is the overlord of Dagbon in Yendi; the Nayiri of Mamprugu in Nalerigu; the Bimbilla Naa of Nanung in Bimbilla and the Yagbonwura of the Gonja Traditional area in

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Damongo. All the paramount chiefs are members of the Northern regional House of Chiefs and also the National House of Chiefs. The predominant languages that are spoken in the region are Dagbani, Gonja and Mampruli. The other languages are Likpakpa, Chokosi, Basaare, Kantosi, Moar, Chamba and Chumburu. The majority of people in the region are engaged in agriculture. The crops that they produce include yam, maize, millet, guinea corn, rice, groundnuts, beans, soya beans and cowpea. The region is also blessed with educational institutions from the primary to the tertiary level and prominent among them are the Tamale Secondary School, Tamale College of Education and University of Development Studies. The geographical map of the Northern Region is depicted in Figure 1.

Source: Ghana Statistical Service (2014)

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Population

The target population comprised all undergraduate distance education students of the University of Education, Winneba of the Northern Region. There were only two centres in the Northern Region with undergraduate distance education students' population of 433. The accessible population was made up of the first- and second-year undergraduate distance education students in the two centres totalling 433. The first and second years were selected because their long experience regarding distance education might have exposed them to some research experience and the need to conduct research at the end of their studies. For the purpose of the study and for a meaningful generalisation, the project work supervisors of the two study centres were also included in the study. The distribution of the population for students and supervisors among the various years and centres is shown in Table 1 and 2.

Table 1: Distribution of Students' Population Based on Study Centre and Years

Study centre and year	Population
Tamale	
Year 1	131
Year 2	110
Yendi	
Year 1	112
Year 2	80
Total	**433**

Source: Tamale and Yendi study centre (2019).

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Table 2: Distribution of Supervisors' Population Based on Study Centre

Study center and year	Population
Tamale	11
Yendi	9
Total	**20**

Source: Tamale and Yendi study centre (2019).

Sample and sampling procedures

A sample refers to a sub-group of the population that is studied in order to make generalization regarding the target population (Creswell, 2014). As maintained by Fowler (2009), the need for sampling in research is to select a portion of the population that is most representative of the population. The sample included all the first- and second-year undergraduate distance education students as well as distance education project work supervisors especially those that supervise students' work in the study area.

Census method was used to select all the 433 undergraduate distance education students and all the 20 project work supervisors in the study area. The purposive sampling is used when the subjects under study possess the characteristics of interest. Looking at the objectives of the study, since every student is obliged to conduct a research work as part of the requirements of the programme of study and that work must be supervised by a certain supervisor, purposive sampling was deemed appropriate.

Data Collection Instrument

A survey questionnaire was developed to collect data on the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research.

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Questionnaire is an effective means of measuring the behavior, attitudes, preferences, opinions and intentions of relatively large numbers of subjects more cheaply and quickly than other methods (Paralov, 2006). The researcher used questionnaire since the focus of the study was on student's behavior, attitudes, preferences, opinions and intentions they have regarding the challenges they encounter in the conduct of their research. Questionnaires are easy to administer, friendly to complete and fast to score and thus, take relatively less time for responding to them (Adane, 2013). On the other hand, the use of questionnaires does not encourage probing which allows respondents to give shallow responses (Payne & Payne, 2004).

After a thorough reading on the challenge's students face in the conduct of their research, a survey questionnaire was developed to collect data for the study in accordance with the suggestions and recommendation from my supervisors. The questionnaires were particularly developed for the distance education students of University of Education, Winneba who are from the Northern Region as well as project work supervisors from the University of Education, Winneba to elicit responses on the challenges students face in the conduct of their research.

In particular, the students' questionnaire was made up of five (5) sections (A to E). Section A sought to elicit responses on the demographic data of students whereas section B was made up of seven (7) items that sought to elicit responses on student-related challenges students face in conducting their research work. Section C was made up of eight (8) items which elicited responses on supervisor-related challenges students face in conducting their research work. Section D contained seven (7) items which sought to elicit

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responses on the institution-related challenges students face in conducting their research work. The last section E allowed respondents to suggest five (5) ways to address the challenges students face in conducting their research work. All the items in sections B to D were measured on a four-point Likert scale; 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Agree (A) and 4 = Strongly Agree (SA) with one (1) indicating the least agreement to the issues and with four (4) representing the strongest agreement to the items. The choice of the Likert scale was based on the fact that it is one of the most reliable ways to measure opinions, attitudes and behaviours of a person towards a particular issue. The Likert scale gives much clearer answer than a simple Yes/No result, by giving different degrees of opinion that will make you understand feedback better.

In addition, the questionnaire for the supervisors also contained five (5) sections (A to E). Section A sought to elicit responses on the demographic data of students whereas section B was made up of four (4) items that sought to elicit responses on the student-related challenges students face in conducting their research work. Section C was made up of six (6) items which elicited responses on supervisor-related challenges students face in conducting their research work. Section D contained seven (7) items which sought to elicit responses on the institution-related challenges students face in conducting their research work. The last section E allowed supervisors to suggest five (5) ways to address the challenges students face in conducting their research work. All the items in sections B to D were measured on a four-point Likert scale; 1 = Strongly Disagree (SD), 2 = Disagree (D), 3 = Agree (A) and 4 = Strongly Agree (SA) with one (1) indicating the least agreement to the issues while four (4) represented the strongest agreement to the items.

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Validity and Reliability of the Instrument

The content validity of the survey questionnaires (for both students and supervisors) on the challenges distance education students face in the conduct of their research was assessed by my supervisors who are experts and well-grounded in the instrument development as well as experts in the field of measurement and evaluation. These experts judged each of the items in in terms of clarity, ambiguity and generality and in line with the objectives of the study, the research questions and the variables of interest of the study, the necessary corrections and suggestions were immediately affected.

In ensuring reliability, the corrected instruments were pilot tested on respondents with similar characteristics to check the consistency of the individual items in measuring the construct under consideration. The pilot testing was done on 50 (which more than 10% of the sample size) undergraduate distance education of the university of Cape Coast in Cape Coast and five supervisors from the University of Cape Coast. Cronbach's Alpha was used to estimate the reliability coefficient. After the reliability analysis, the reliability coefficient for the students' questionnaire was 0.70 (with subscales of .50, .40 and .50 for student-challenges which was composed of seven items, supervisor-related challenges which was composed of eight items and institutional-related challenges which was composed of seven items. The reliability estimates for the supervisors' questionnaire stood at .89. According to Pallant (2010), a reliability coefficient of .70 and above is reliable for collecting data and making a generalization there off. The Cronbach alpha was used in estimating the internal consistency of the scale because the nature of the scale satisfied all the assumption of Cronbach's alpha. Cronbach's alpha comes with a few

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assumptions. First of all, the items under the scale should be unidimensional which means all of the items are related only to one latent construct. Second, the items should be normally distributed and continuous. Also, the error terms of the items should not be correlated.

Data Collection Procedure

Prior to the data collection, an introductory letter was obtained from the Head of Department of Education, College of Distance Education, University of Cape Coast. This enabled the researcher to get the needed assistance and cooperation from the centre coordinators of the various centres. A copy of the introductory letter was given to each entre coordinator. At each centre, the purpose of the study was explained to the respondents, they were assured of anonymity and confidentiality, and encouraged to respond freely and as honestly as possible to the questionnaires

The questionnaires were personally administered to the respondents in the selected centres with the aid of four assistants who were trained in line with the purpose and objectives of the study as well as data collection techniques. The questionnaires were then distributed to the respondents and instructions pertaining to the items were carefully explained to them. Enough time was provided for them to respond to all the questions after which they submitted it.

Ethical Considerations

The ethical consideration adopted included informed consent, confidentiality, voluntary participation, and right to leave the study. Mindful of these considerations, rrespondents had to indicate their consent to take part in the study. To ensure confidentiality and anonymity of the respondents, they were told not to indicate their names neither were they to indicate anything to

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trace their identity. In addition, respondents were told that they had the right to leave the study at any time they wanted. In essence, respondents were respected regarding these variables throughout the conduct of the study and the entire data collection process. Another ethical consideration that was checked was plagiarism. This occurs when a researcher falsifies, distorts data or plagiarises other peoples' works. In addressing this, the researcher gathered information from the right respondents and subjected the information gathered to proper analysis before writing the research report. In addition, all the works and writings were duly acknowledged by way of providing appropriate references. There researcher trained two people to assist in the collection of data. After taking permission from the respective study centre coordinators, appropriate time and data were scheduled for the data collection exercise. On that day, students were assembled and the questionnaires were administrated. For the project supervisors, the questionnaires were given to them during face-to-face session. The students and the project supervisors took about 30-40 minutes in responding to the questions. The data collection process took six weeks.

Data Processing and Analysis

The data analysis phase consisted of editing, coding and statistical computation. After data collection, the items on each of the questionnaires were labelled serially to ensure easy identification and for easy coding. The data gathered was then processed with the aid of Statistical Packages for Social Sciences after the data had been collated and edited in order to address the research questions. Percentages and frequencies were used to analyse the data that was collected on the background information of the respondents as well as the data for research question four. The data for the research questions one to

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three were analysed using means and standard deviations. For the data for research question four, frequencies and percentages were used in the analysis. Thus, the mean tells us what the average value is and the SD tells us what the average scatter of values is, around the mean. Taken together, especially along with the range, these statistics give us a good mental picture of the sample. The standard deviation is used in conjunction with the mean to summarise continuous data, not categorical data. In addition, the standard deviation, like the mean, is normally only appropriate when the continuous data is not significantly skewed or has outliers.

Chapter Summary

The study explored the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research. The chapter discussed the methods and procedures that were used to accomplish the objectives of the study. The chapter outlined and described research design, population and sample, data collection instruments, data collection and analysis procedures as well as validity and reliability of the instruments. It can be observed that descriptive research design with quantitative approach was most appropriate for the study although the design comes with some limitations. In particular, the design fails to give in-depth description of the respondents' responses and fails to allow for follow-ups on respondents' responses. Apart from the pitfalls of the design, since the study focused on obtaining information on the current status of respondents on what they see as challenges they face regarding the conduct of the research work, the design was appropriate.

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CHAPTER FOUR

RESULTS AND DISCUSSIONS

Overview

The purpose of the study was to explore the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The descriptive research methodology with quantitative approach was deemed appropriate where questionnaires for distance education students and research work supervisors were used to collect data for the study. Descriptive statistics such as means and standard deviations were used to analyse the gathered data in exploring the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research.

The final sample size for the study was 433 students and 20 supervisors which means that all the questionnaires that were given to the sampled students and supervisors were answered and returned thereby achieving a 100% response rate.

Results

Demographic characteristics of Senior High School students

This section surveyed responses on the demographic characteristics of respondents including gender and study centre (for students and supervisors). A summary of the responses on the demographic characteristics is presented in Tables 3 to 6.

Gender of respondents

The gender of respondents is presented in Table 3.

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Table 3: Gender of Respondents

Students	Frequency	Percentage
Male	203	46.90
Female	230	53.10
Total	**433**	**100.0**

Source: Field Survey (2019)

From Table 3, 46.90% (203) of the respondents were males whereas 53.10% (230) of the respondents were females. The results depict that the female respondents that were sampled outnumbered their male counterparts.

Study centre of respondents

The study centre of respondents is presented in Table 4.

Table 4: Study Centre of Respondents

Study Centre	Frequency	Percentage
Tamale	241	55.70
Yendi	192	44.30
Total	**433**	**100.0**

Source: Field Survey (2019)

From the result depicted in Table 4, 55.70% (241) of the respondents were from Tamale study centre whereas 44.30% (230) of the respondents indicated that they were from the Yendi study centre. The results show that distance education students from Tamale study centre outnumbered the number of students from Yendi study centre.

Gender of Supervisors

The gender of supervisors is presented in Table 5

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Table 5: Gender of Supervisors

Gender	Frequency	Percentage
Male	17	85.0
Female	3	15.0
Total	**20**	**100.0**

Source: Field Survey (2019)

From Table 5, 85% (17) of the supervisors that were males whereas 15% (15) of them were females. The results depict that there more male supervisors than their female counterparts.

Study centre where supervisors were met

The study centre where supervisors were met is presented in Table 6.

Table 6: Study Centre Where Supervisors Were met

Study Centre	Frequency	Percentage
Tamale	11	55.0
Yendi	9	45.0
Total	**20**	**100.0**

Source: Field Survey (2019)

From the result depicted in Table 6, 55.0% (11) of the supervisors were from Tamale study centre whereas 45.0% (9) of them indicated that they were from the Yendi study centre. The results show that there were more supervisors from the Tamale study centre as compared to the Yendi study centre.

Research Question One

What student-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

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The goal of this research question was to explore the student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. Factors that were identified were inadequate time to conduct their research work, lack of necessary finances to complete their research work, lack of motivation to conduct research work, lack of commitment, inadequate theory and knowledge in the area being researched, family problems/commitments and lack of research materials such as computer and/or laptops and internet facility for conducting a research work.

To achieve the objective of this research question, seven items were set which were measured on a four-point Likert scale with 1- strongly disagree, 2- disagree, 3- agree and 4- strongly agree where 1 indicates the least agreement to the statement and 4 indicating the strongest agreement to the statements. Means and standard deviation were used to analyze the responses of respondents. In the analysis, mean values above 2.5 (1+2+3+4/4=2.5) shows that majority of the respondents agreed to the statement while a mean value below 2.5 shows that majority of the respondents disagreed to the statement. A summary of the responses is presented in Table 7.

Table 7: Student-related Challenges Undergraduate Distance Education students of UEW, Winneba Face in Conducting Research

Statements	**Mean**	**Std. Dev**
Students do not have adequate time to conduct their research work	2.77	.93
Students lack the necessary finances to complete their research work	2.87	1.11
Students are not motivated conduct a research work	2.54	1.03
Students are not committed conduct a research work	2.38	1.30
	2.72	1.01

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Students lack adequate theory and knowledge in the area being researched on	2.60	1.04
Students are faced with family problems/commitments	2.87	1.03
Students do not have research materials as computer and/or laptops and internet facility		

Source: Field survey (2019), N= 433

Results from Table 7, show that majority of the respondents agreed to the statements "Students do not have adequate time to conduct their research work" (Mean = 2.77, Std. Dev. = .93), "Students lack the necessary finances to complete their research work" (Mean = 2.87, Std. Dev. = 1.11) and "Students are not motivated to conduct a research work" (Mean = 2.54, Std. Dev. = 1.03). From Table 7, a greater percentage of the respondents further agreed to the statements "Students lack adequate theory and knowledge in the area being researched on" (Mean = 2.72, Std. Dev. = 1.01), "Students are faced with family problems/commitments" (Mean = 2.60, Std. Dev. = 1.04) and "Students do not have research materials as computer and/or laptops and internet facility" (Mean = 2.87, Std. Dev. = 1.03).

It can however, be inferred from the result that, the student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research are inadequate time to conduct their research work, lack of finances to complete their research work, lack of motivation to conduct a research work, inadequate theory and knowledge in the area being researched, family problems/commitments and lack of research materials such as computers and/or laptops and internet facility.

In other to confirm the aforementioned student-related challenges that were revealed by the students regarding the conduct of research work, 20

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supervisors were asked some questions. These questions included adequacy of time to conduct their research work, commitment of students in conducting their research work, students' motivation to conduct a research work, and adequacy of theory and knowledge in the area being researched. A summary of supervisors' responses is presented in Table 8.

Table 8: Supervisors' view on Student-related Challenges Undergraduate Distance Education students of UEW, Winneba Face in Conducting Research

Statements	Mean	Std. Dev
Students do not have adequate time to conduct their research work	2.90	1.1
Students are not motivated conduct a research work	2.89	1.0
Students are not committed conduct a research work	2.73	1.1
Students lack adequate theory and knowledge in the area being researched on	2.55	1.3

Source: Field survey (2019), N= 20

It can be inferred form Table 8 that the sampled supervisors agreed to all the items relating to the student-related challenges undergraduate distance education students of the UEW face in the conduct of their research work. Making inferences from the results in Table 8, the highest mean is 2.90 with a lowest mean of 2.55. This shows that according to the sampled supervisors, the student-related challenges distance education teachers face in the conduct of their research work are inadequate time to conduct their research work, lack of motivation by students to conduct a research work, lack of commitment by students in the conduct of research work and lack of adequate theory and knowledge in the area being researched on.

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Research Question Two

What supervisor-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

The goal of this research question was to explore the supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. Factors identified were supervisors' inability to meet students regularly, lack of interest in students' topic, no or little practical help given by supervisors to students, no/little directions from supervisors to their students, failure to return students' work promptly, lack of research experience by supervisors, lack of the relevant research skills and/or knowledge of supervisors, failure to communicate with students on their progress.

To achieve the objective of this research question, eight items were set which were measured on a four-point Likert scale with 1- strongly disagree, 2- disagree, 3- agree and 4- strongly agree where 1 indicates the least agreement to the statement and 4 indicating the strongest agreement to the statements. Means and standard deviation were used to analyze the responses of respondents. In the analysis, mean values above 2.5 (1+2+3+4/4 =2.5) shows that majority of the respondents agreed to the statement while a mean value below 2.5 shows that majority of the respondents disagreed to the statement. A summary of the responses is presented in Table 9.

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Table 9: Supervisor-related Challenges Undergraduate Distance Education Students of UEW, Winneba Face in Conducting Research

Statements	Mean	Std. Dev
Supervisors are not able to meet students regularly	3.09	1.17
Supervisors most at times do not have interest with our topic	2.95	1.24
Students are often given little or no practical help by their supervisors	2.83	.94
There are no/little directions from supervisors to their students	2.51	.99
Supervisors fail to return students' work promptly		
Supervisors lack research experiences	2.76	1.00
Supervisors lack the relevant research skills and or knowledge	1.99	1.04
	2.00	1.03
Supervisors fail to communicate with their students on their progress	2.58	1.03

Source: Field survey (2019), N= 433

Results from Table 9, show that majority of the respondents agreed to the statements "Supervisors are not able to meet students regularly" (Mean = 3.09, Std. Dev. = 1.17), "Supervisors most at times do not have interest with our topic" (Mean = 2.95, Std. Dev. = 1.24) and "Students are often given little or no practical help by their supervisors" (Mean = 2.84, Std. Dev. = .94). From Table 9, a greater percentage of the respondents further agreed that to the statements "There are no/little directions from supervisors to their students" (Mean = 2.51, Std. Dev. = .99), "Supervisors fail to return students' work promptly" (Mean = 2.76, Std. Dev. = 1.00) and "Supervisors fail to communicate with their students on their progress" (Mean = 2.58, Std. Dev. = 1.03).

It can be inferred from the result that, the supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research are

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supervisors inability to meet students regularly, lack of interest in students' topic, no or little practical help given by supervisors to students, no/little directions from supervisors to their students, failure to return students' work promptly, and failure to communicate with students on their progress.

In other to validate the aforementioned supervisor-related challenges that were revealed by the students regarding the conduct of research work, 20 supervisors were asked on what they see as challenges regarding the conduct of undergraduate students' research work. The questions included supervisors' regularity in meeting students, interest in students' topic, practical help given to students, directions given to students, prompt of students' work, supervisors' research experiences, and relevant research skills and or knowledge in research. A summary of supervisors' responses is presented in Table 10.

Table 10: Supervisors' view on supervisor-related Challenges Undergraduate Distance Education Students of UEW, Winneba Face in Conducting Research

Statements	Mean	Std. Dev
Supervisors are not able to meet students regularly	2.56	1.0
Supervisors most at times do not have interest with our topic	2.15	.99
Students are often given no practical help by their supervisors	2.66	1.1
There are no/little directions from supervisors to their students	2.12	1.0
Supervisors are faced with difficulties in returning students' work promptly	3.34	1.2
Supervisors do not have the chance to communicate with their students on their progress on time	2.61	1.1

Source: Field survey (2019), N= 20

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Results in Table 10 indicate that the sampled supervisors agreed that "Supervisors are not able to meet students regularly" (Mean = 2.56, Std. Dev = 1.0) and that "Students are often given no practical help by their supervisors" (Mean = 2.66, Std. Dev = 1.1). Majority of the supervisors also agreed that "Supervisors are faced with difficulties in returning students' work promptly" (Mean = 3.34, Std. Dev = 1.2) and that "Supervisors do not have the chance to communicate with their students on their progress on time" (Mean = 2.61, Std. Dev = 1.1). The result indicates that from perspectives of the supervisors, their main challenges are their inability to meet students regularly, students are often given no practical help by their supervisors, supervisors are faced with difficulties in returning students' work promptly and supervisors do not have the chance to communicate with their students on their progress on time.

Research Question Three

What institutional-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

The goal of this research question was to explore the institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. Factors that were identified included failure of institution to offer students adequate courses in research methods, inadequate time to conduct and complete by given to students, lack of the exposure of supervisors to research skills, lack of online research resources at university's website, lack of research materials on institution's website, little or no online interactions in research for

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distance students, and inadequate library resources especially on university's website.

To achieve the objective of this research question, seven items were set which were measured on a four-point Likert scale with 1- strongly disagree, 2- disagree, 3- agree and 4- strongly agree where 1 indicates the least agreement to the statement and 4 indicating the strongest agreement to the statements. Means and standard deviation were used to analyse the responses of respondents. In the analysis, mean values above 2.5 (1+2+3+4/4 =2.5) shows that majority of the respondents agreed to the statement while a mean value below 2.5 shows that majority of the respondents disagreed to the statement. A summary of the responses is presented in Table 11.

Table 11: Institutional-related Challenges Undergraduate Distance Education Students of UEW, Winneba Face in Conducting Research

Statements	Mean	Std. Dev
My institution fails to offer students adequate courses in research methods	2.42	1.4
The time spent on conducting research work as giving by my institution is not adequate	2.25	1.1
I feel that my institution do not expose supervisors to adequate research skills	2.37	1.3
There is the lack of online research resources at university's website	2.50	1.4
There is generally the lack of research materials in my institution's website	2.73	1.00
There is the little or no online interactions in research for distance students	3.10	1.03
There are inadequate online library resources in my institution website	2.65	1.09

Source: Field survey (2019), N= 433

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Results from Table 11 show that majority of the respondents agreed to the statements "There is the lack of online research resources at university's website" (Mean = 2.50, Std. Dev. = 1.4), "There is generally the lack of research materials in my institution's website" (Mean = 2.73, Std. Dev. = 1.00), "There is the little or no online interactions in research for distance students" (Mean = 3.10, Std. Dev. = 1.03) and "There are inadequate online library resources in my institution website" (Mean = 2.56, Std. Dev. = 1.09).

It can be inferred from the result that, the institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research are lack of online research resources at university's website, generally the lack of research materials on institution's website, little or no online interactions in research for distance students and inadequate online library resources.

In other to validate the aforementioned institutional-related challenges that were revealed by the students regarding the conduct of research work, 20 supervisors were asked on what they see in their institution as challenges regarding the conduct of undergraduate students' research work. The questions that were asked included institution failure to offer students adequate courses in research methods, adequacy of time spent on conducting research work, institution's failure to organise orientation for supervisors in research, availability of online research resources at university's website, research materials on institution's website, online interactions in research for distance students and online library resources in my institution website. A summary of the responses is presented in Table 12.

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Table 12: Supervisors' view on Institutional-related Challenges Undergraduate Distance Education Students of UEW, Winneba Face in Conducting Research

Statements	Mean	Std. Dev
Inadequate courses in research methods to students exits in my institution	2.86	1.2
Inadequate time spent on conducting research work	1.89	1.1
My institution do not organise regular orientation for supervisors	3.02	1.1
There is the lack of online research resources at university's website	2.90	1.3
Lack of adequate research materials on my institution's website	2.99	1.2
There is little or no online interactions in research for distance students	3.10	1.3
There are inadequate online library resources in my institution website	2.73	1.1

Source: Field survey (2019), N= 20

With reference to the results in Table 12, it can be observed that majority of the supervisors that were sampled agreed to the statements "Inadequate courses in research methods to students exists in my institution" (Mean = 2.86, Std. Dev = 1.2), "My institution does not organise regular orientation for supervisors" (Mean = 3.02, Std. Dev = 1.1), "There is the lack of online research resources at my university's website" (Mean = 2.90, Std. Dev = 1.3) and "Lack of adequate research materials on my institution's website" (Mean = 2.99, Std. Dev = 1.2). From Table 12, a greater percentage of the supervisors further agreed that "There is little or no online interactions in research for distance students" (Mean = 3.10, Std. Dev = 1.3) and "There are inadequate online library resources in my institution website" (Mean = 2.73, Std. Dev = 1.1). It is

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evident that, from the views of the supervisors that were sampled for the study, the institutional related challenges undergraduate students of the UEW faced in the conduct of their project work were inadequate courses in research methods, institution inability to organise regular orientation for supervisors, lack of online research resources at university's website, lack of adequate research materials on institution's website, little or no online interactions in research for distance students and inadequate online library resources. These challenges confirm the challenges that were revealed by the students.

Research Question Four

What are the suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

The goal of this research question was to explore from the respondents the suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research. To be able to answer this research question, an open-ended question was presented to respondents which demanded that they suggest five ways of solving the challenges they faced in conducting their research work. To be able to answer this research question, the common suggestions respondents gave were noticed and recorded. Frequencies and percentages were used to analyse the common responses that were noticed. A summary of the responses is presented in Table 13.

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Table 13: Suggested ways by Students to solve the Challenges Undergraduate Distance Education Students of UEW Face in Conducting Research

Statements	Freq. N	Percentage %
Provision of adequate time by the university	305	70.4
Better knowledge needed in the conduct of research	402	92.8
Practical directions and help from supervisors	421	97.2
Regular meetings with supervisors	300	69.3
Additional courses in research methods and its related subjects	389	89.8
Return of students' work on time by supervisors	429	99.0
Submission of work by students on time	398	89.8
Provision of research materials and library resources online to students	275	63.5
Constant communication with supervisors and/or students	421	97.2
Adequate information pertaining to the conduct of research work by the university	367	84.8

Source: Field survey (2018), N= 433

It can be inferred from Table 13 that majority of the respondents believed that the university should provide adequate time for the conduct of research work, provide adequate knowledge needed in the conduct of research, the need for practical directions and help from supervisors, regular meetings with supervisors, the need for additional courses in research methods and its related subjects and return of students' work on time by supervisors are some suggested ways to curb the challenges students face in their conduct of research. The respondents were also of the view that students should submit their work on time, there should be provision of research materials and library resources

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online to students by the university constant communication between supervisors and students, and adequate information pertaining to the conduct of research work by the university can help in the prevention of the challenge's students face in the conduct of their research work. It can be inferred from Table 12 that the least percentage of these suggestions by respondents is 63.5 and the highest percentage is 99.0. This shows that a greater percentage of the respondents had similar suggestions.

Similarly, the sampled supervisors were asked some of the suggested ways to control the challenges that distance education students face in conducting research work. A summary of their responses is presented in Table 14.

Table 14: Suggested ways by Supervisors to solve the Challenges Undergraduate Distance Education Students of UEW Face in Conducting Research

Statements	Percentage%
Provision of adequate time by the university and exposure of students to timely and multiple courses in research methods	83.5
Given of practical directions to students where needed	65.2
Efforts must be made by both supervisors and student to regularly meet and discuss the progress of students' work	77.8
Efforts should be made to submit works by students and return from supervisors on time	81.9
Provision of adequate research materials and online library resources to both supervisors and students as well as provision of adequate information pertaining to the conduct of research work by the university	90.3

Source: Field survey (2019), N= 20

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It can be inferred from Table 14 that, majority (83.5%) of the sampled supervisors reported that there is the need for the provision of adequate time by the university and exposure of students to timely and multiple courses in research methods. The supervisors further reported that practical directions must be given to students where needed (65.2%) and that efforts must be made by both supervisors and student to regularly meet and discuss the progress of students' work (77.8%). Making reference from Table 14, a greater percentage of the supervisors reported that efforts should be made to submit works by students and return from supervisors on time (81.9%) and that there should be the provision of adequate research materials and online library resources to both supervisors and students as well as provision of adequate information pertaining to the conduct of research work by the university (90.3%). It is obvious that the suggestion as reported by the supervisors confirm that of the students.

Discussions

The discussion is done in line with the specific objectives of the study. The first specific objective of the study was to explore the student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The findings of the study show that the student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research are inadequate time to conduct their research work, lack of finances to complete their research work, lack of motivation to conduct a research work, inadequate theory and knowledge in the area being researched, family problems/commitments and lack of research materials such as computer and/or

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laptops and internet facility on the conduct of a research work. As indicated by Pearce (2005) and Anderson et al. (2006) several students' factors identified include are lack of time, lack of money, lack of commitment and motivation to do the research, lack of adequate theory in the area being researched on, and students' failure to meet regularly with the supervisor as well as family problems/commitments serve as key challenges to students in the conduct of their research experience.

For instance, Pearce (2005) pointed that distance education students do not dedicate the required amount of time needed to conduct their research work. A notable reason to this might be that majority of the students who are on the distance education programmes are workers and parents who may not have the needed time to go through the rigorous scientific nature of educational research (Pearce 2005). Another challenge that has been noted in research literature is lack of money. Anderson et al. (2006) stressed that the conduct of a meaningful research comes with a cost which can be high, medium or low. The cost results from numerous o printing, data analysis, stationaries and other needed materials to the conduct of research and research students do not have the needed income for that purpose.

Other factors include lack of commitment and motivation. According to Anderson et al. (2006) and Bell (2000), when students are not committed and motivated (both intrinsically and extrinsically) there is no way they will invest their time, money and other resources in their research experiences. Anderson et al. (2006) further indicated that content knowledge in research and conducting it are very crucial in the research process. In particular, the lack of knowledge could be as a result of lack of understanding in research courses

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leading to lack of understanding in the general research process (Anderson et al., 2006). Most of the Students also have challenges in meeting their supervisors on time due to other family problems and commitments.

Similarly, Rangecroft, et al. (2006) points out that distance education always comes with the difficulty in meeting students especially at the research stages due to the remoteness of the students to the preferable place of meeting and other family commitments. It should be pointed that the findings of the study are consistent with empirical literature. For instance, these findings of the current study agree with Mapolisa and Mafa (2012) who found using 45 Bachelor of Education distance education students that student-related challenges that affect the conduct of research work are lack of money, time, library resources and family problems.

In other related studies, Mafenya (2014) conducted a study on challenges faced by higher education institutions in research skills development using the South African open and distance learning as a case study. The author contended that while there is a huge literature on research in higher education on various topics of interest, there is scant literature on the challenges facing research skills development for our students in South Africa and especially distance education students. The study therefore used Nonaka's (1994) organizational knowledge creation theoretical framework to better understand the study variables. The current finding is also consistent with the position of Alsied and Ibrahim (2017) who found from a sample of 42 distance education students and 4 teachers that distance learners have difficulty developing a research project and reporting the findings.

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In particular Alsied and Ibrahim (2017) reported that student had challenges in identifying the area of research interest, writing a literature review, methodology, results and discussion sections which showed that students had low knowledge in the conduct of research work. The study also partially confirmed position of Nzama (2013) who concluded from 29 distance education students, 6 supervisors and 2 lecturers that students were faced with challenges such as lack of time and skills, huge workload, and problem in reaching a conclusion and making recommendations.

It can be inferred from the forgoing discussion that the findings of the current study agree with several others in literature and that, the sampled students faced such similar problems in the conduct of their project work. In actual fact, when students stay at distant places far from their supervisors due to the nature of their programme, have low knowledge in the conduct of their research work, lack the necessary finances, among others, the end result would be their inability to conduct their project work which is a requirement for their completion of their programmes of study.

Making references to the theoretical review of the study, it is obvious that the students-related challenges as revealed in the study come from immediate environment of the students. Particular, the challenges come from students' own experiences within and outside the school environment which becomes obvious from the use of the ecological system theory by Bronfenbrenner (1995). The finding also supports the transitionary distance, interaction, control and social context theory as used in the study. This is because, as part of the transactional distance, there should be a cordial academic relationship between distance education students and their instructors

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(supervisors) as they conduct their research works. The conducted of the research work also calls for the interactions between supervisors and students which provide the basis of directions to the conduct of the research work.

The second specific objective of the study was to explore the supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research. From the findings of the study, the supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research were supervisors inability to meet students regularly, lack of interest in students' topic, no or little practical help given by supervisors to students, no/little directions from supervisors to their students, failure to return students' work promptly, and failure to communicate with students on their progress. It should be pointed out that this finding of the current study is grounded in literature both conceptually and empirically. For example Nyawaranda (2005), Chabaya, Chiome and Chabaya (2009) and Pearce (2005) highlight that some supervisor-related challenges affect distance education students when conducting their research work.

According to Nyawaranda (2005), supervisors are always burdened with a wide variety of academic task and as a result have no or very limited time to meet and supervise their students' research work which affect student' conduct of project work. Another factor which according to Chabaya et al. (2009) serves as challenge to distance education students and students in general is the lack of interest in students' topic. Although Rajasekar et al., (2013) point out that research begins with a problem, some supervisors feel that students must present

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a topic at their first meeting without asking them about the problem or a research proposal. The end result is supervisors' exposure to scanty information on the research interest of students and consequently, when the supervisor have no or little interest in the topic, it ends the research process or students are told to re-submit another topic.

Nyawaranda (2005) also contends that supervisors who are assigned to supervise their students' research work themselves have no or little knowledge in research or the problem at hand. The lack of knowledge in research and/or the problem could serve as the basis for the lack of interest in students work (Pearce, 2005). This is due to the lack of time, commitment, dedication and other unknown factors, which supervisors fail to vet and return students' research work on time. In worst cases, some supervisors also lack the research experience and relevant research skills/knowledge to help their students. According to Aderson et al. (2006), some supervisors also lack the necessary research experience and relevant research skills/knowledge to guide their students. It is an undeniable fact that when a supervisor lacks these essential and fundamental traits in research and the entire research experiences, students face problems in their conduct of research.

Empirically, the finding of the current study collaborates the positions of Mapolisa and Mafa (2012) who found that tutor related challenges such as lack of research interest and experience, tutor absence from work and failure to return to work promptly are challenges distance education students face in the conduct of their project work. The finding of the study is also consistent with the findings of Alsied and Ibrahim (2017) who found that supervisors had negative attitudes towards their students' research as well as their insufficient

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background knowledge about research thereby affecting distance education students' conduct of research. The finding of the current study is also in line with Nzama (2013) who contended that students face challenges due to supervisor/lecturers' lack of time and skills and huge workload.

Making references from the theoretical review of the study, the current findings support the ecological systems theory by Bronfenbrenner (1995). It is obvious that the challenges come from the school environment within which supervisors are found. It follows that any negative influence such as what have been found in the study from supervisors may hinder students' conduct of their research work. By principle, Moore (1990) in his interaction theory of distance education stresses that there should be some form of independence and control to allow students to explore for themselves and to conduct their research in well recognised social context. It is very obvious when distance education students do not access some of these supervisor-related necessities, they will face difficulties in their studies which includes the conduct of their research work and this has been validated in the current study.

The third specific objective of the study was to explore the institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The findings of the study showed that the institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research were lack of online research resources at university's website, generally the lack of research materials on institution's website, little or no online interactions in research for distance students and inadequate online

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library resources. Apart from student and tutor-related challenges, some institutional factors included inadequate courses in research methods, inadequate time to complete research work, lack of supervisors' exposure to research skills, lack of research materials, etc., have been noted in literature in affecting students' conduct of research work.

For instance, Thondhlana et al. (2011) stress that the lack of adequate courses in research methods as offered by the institutions within which students are serves as a challenge for the students. This is critical in that the inadequacy of the research methods' courses leave them no or little knowledge to conduct research work on their own. In addition, Shumba (2004) and Nyawararnda (2005) stipulate that the time factor in research is extremely important for the conduct of a meaningful research. It has been found that when the time to carry out a research work in limited to the delay from their supervisors and/or students, the conduct of the project work is affected negatively (Shumba, 2004). Among others, Shumba (2004) reports that tertiary institutions whose students conduct research fail to give their supervisors some form of research orientation to sharpen their (supervisors) skills. This is vital because supervisors' orientation serves as a point of recall regarding the necessary skills, they might need to supervise their students (Shumba, 2004).

It should be noted that apart from the foregoing conceptual literature, the findings of the study is also consistent with empirical literature. For instance, the findings agree with Alsied and Ibrahim (2017) who revealed from a sample 42 of students and 4 teachers of Sebha University in Libya that distance education students face challenges such as insufficient background knowledge about research, lack of library resources, and inadequate number of courses

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related to research and unavailability of internet in the college and lack of motivation. It should be pointed that when institutions fail to ensure these necessary mechanisms the end results would be students' inability to conduct their research and on time.

The result is also consistent with Mapolisa and Mafa (2012) who reported from a sample of 45 Bachelor of Education distance education students from in Harare and Bulawayo regions of the Zimbabwe Open University, that undergraduate distance education students face institutional related challenges such as lack of internet facilities, lack of research-related courses and lack of online library resources to help students in the conduct of their research work. The study is also consistent with the theoretical framework of Bronfenbrenner (1995) and the interaction theory of distance education as indicated by Moore (1990). With this, the challenges that originate from the institution as identified in this current finding the institution which is the environment within which the students and supervisors are found. In addition, the interaction between the institutions and students in the conduct of students' project work is critical.

The fourth objective of the study was to find out the suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The respondents were of the view that students should submit their work on time, be provided research materials and library resources online to students by the university, there should be constant communication with supervisors and/or students and adequate information pertaining to the conduct of research work should be provided by the university to help in the prevention of the challenge's students face in the conduct of their research work. These

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suggested ways collaborate with the position of Nzama (2013) who opined that immediate and lasting remedies should be found to address the research challenges students face in the conduct of their project work. According to Nzama (2017) such ways includes adequate courses in research methods, adequate guidance to their students, constant communication with supervisors and/or supervisors, adequate information pertaining to the conduct of research, among other which have been validated in this current study.

Chapter Summary

The chapter has presented the results and discussion of the study. The findings of the study have revealed challenges that results from students, supervisors and institutions which affect undergraduate distance education students' conduct of research work. From the result of the study, the student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research were inadequate time to conduct their research work, lack of finances to complete their research work, lack of motivation to conduct a research work, inadequate theory and knowledge in the area being researched, family problems/commitments and lack of research materials such as computers and/or laptops and internet facility for the conduct of research work.

The supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research were supervisors' inability to meet students regularly, lack of interest in students' topic, no or little practical help given by supervisors to students, no/little directions from supervisors to their students,

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failure to return students' work promptly, and failure to communicate with students on their progress.

The institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research are lack of online research resources at university's website, general lack of research materials on institution's website, little or no online interactions in research for distance students and inadequate online library resources. To address these challenges, the respondents suggested the following: students should submit their work on time, provision of research materials and library resources online to students by the university, constant communication with supervisors and/or students and adequate information pertaining to the conduct of research work by the university can help in the prevention of the challenge's students face in the conduct of their research work

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CHAPTER FIVE

SUMMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

The chapter presents a summary of the key findings, the conclusions drawn as well as recommendations made in the study. The chapter also makes suggestions for further research.

Overview of the Study

Engaging students in research is a complex undertaking and that higher institutions must be cautious in conducting research and plenty of time must be allocated for the completion of each stage of the activity. Alsied and Ibrahim (2017) assert that institutions and students as well as researchers must be careful and specify a number of hours each week to work around a chosen research problem for a successful arrival of findings. Before the scheduled deadline, they need to spend additional hours or weeks dealing with issues that arise in the project. In short, there are unexpected problems and difficulties that student researchers including distance education students face in their conduct of mandatory research experience.

The study sought to explore the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. To achieve the purpose of the study, the following research questions guided the study:

1. What student-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

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2. What supervisor-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?
3. What institutional-related challenges do undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?
4. What are the suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research?

With reference to the purpose and specific objectives of the study, the descriptive research design with quantitative approach was used. Census sampling was used to select all the 433 first- and second-year undergraduate distance education students and 20 supervisors of University of Education, Winneba, were used as the sample for the study. Self-developed questionnaires were used to collect data from the sample indicated. The statistical tools that were used in the analysis included frequencies, percentages, means and standard deviations.

Summary of key findings

The key findings are presented in accordance with the objectives of the study as follows:

The first specific objective of the study was to explore the student-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The key finding that emerged was that, undergraduate distance education students of University of Education, Winneba, in the Northern Region

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of Ghana face student-related challenges such as inadequate time to conduct their research work, lack of finances to complete their research work, lack of motivation to conduct a research work, inadequate theory and knowledge in the area being researched, family problems/commitments and lack of research materials such as computer and/or laptops and internet facility.

The second specific objective of the study was to explore the supervisor-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The key finding that emerged was that supervisor-related challenges such as supervisors' inability to meet students regularly, lack of interest in students' topic, no or little practical help given by supervisors to students, no/little directions from supervisors to their students, failure to return students' work promptly, and failure to communicate with students on their progress were the challenges faced by distance education undergraduate students in the conduct of their research work.

The third specific objective of the study was to explore the institutional-related challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. The key finding that emerged was that, institutional-related challenges such as lack of online research resources at university's website, lack of research materials on institution's website, little or no online interactions in research for distance students and inadequate online library resources are faced by undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research.

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The fourth objective of the study was to find out the suggested ways to solve the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana faced in conducting research. The key finding was that the respondents reported that students should submit their work on time, provision of research materials and library resources online to students by the university, constant communication with supervisors and/or students and adequate information pertaining to the conduct of research work by the university can help in the prevention of the challenge's students face in the conduct of their research work.

Conclusions

From the findings of the study, the following conclusions are drawn:

First and foremost, it can be concluded from the findings that, the challenges undergraduate distance education students of the UEW face in their conduct of project work originate from the students themselves, supervisors and the institution and therefore multi-dimensional. For example, when students do not have the necessary skills and knowledge to carry out their research work or when they do not have the necessary materials, it would lead to lack of interest and motivation that are needed to complete their research work. Similarly, when supervisors do not have key interest or the needed time to meet and discuss the progress of students in the research process, it would also lead to lack of commitment, motivation and little or no practical help regarding the conduct of the research work. In addition, when the school fails to provide conducive online research resources to distance education students and give students adequate courses in research methods, it would lead knowledge students'

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knowledge and skills in their conduct of research which will consequently lead no or little motivation which will affect their completion of research work.

Secondly, it can be concluded from the findings that both the supervisors and students do not put in their best when it comes to students' conduct of research work. Since the supervisors work directly with students, the presence of the aforementioned challenges that have been revealed come as a result of the actions of the supervisors and students which hinder effective conduct of students' research work in the study area. It can therefore be concluded that both supervisors and students themselves fail to do their best regarding the conduct of research work and this might result in the lack of completion of the research work.

Finally, it should be stressed that when students do not have adequate knowledge in the conduct of research work, naturally, such students may lack the zeal and motivation to go through a research experience. The situation becomes worse when they are given no or practical help and/or direction from their supervisors as well as the lack of communication between students and supervisors. The fact that students reported that they lack the knowledge regarding the conduct of research work, among others, it can be concluded that the lack of students' knowledge might be the greatest challenge undergraduate students of the study area might have encountered.

Recommendations

Based on the findings and the conclusions drawn from the study, the recommendations were made for policy interventions

1. The study recommends that the college of Distance Learning as well as the authorities of the University of Education Winneba ensure that

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students are given the necessary knowledge which will enable them to conduct their research independently. This can be done by inculcating adequate content courses in research methods to enable students have mastery regarding the conduct of research work.

2. Supervisors and students should be encouraged by the university authorities to exhibit good and appropriate attitudes toward the conduct of research works. Students for example, should be encouraged by such authorities and themselves to read wide on the conduct of research work, present work to their supervisors on time, have adequate materials to conduct their research work etc. Similarly, supervisors should ensure immediate communication and feedback between themselves and their students, should give practical help and directions, return students' work regularly and on time. This will pave the way and encourage students to work meaningfully in order to ensure a meaningful conduct of research work.
3. The University of Education should also make efforts to ensure there are online research resources and interactions for distance education students. With reference to the nature of distance education, such platforms will enable students to be in the known of the needed and up to date information regarding the conduct of research work. The university should also communicate the relevance of research work to students and make sure that they appoint supervisors who are ready in the supervisory processes. When these are done, students will come to appreciate the need of their research experience and develop the motivation toward it.

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4. Furthermore, the study recommends that, in order to find solutions to the aforementioned challenges, it should be done in holistic manner rather than playing a particular attention to the individual challenges that result from the students, supervisors and institution itself. Specifically, an attempt to provide solutions to these challenges should involve tackling all the challenges as a whole in order to avoid any other challenges.
5. It is also recommended that the University of Education, Winneba supplies supervisors and especially distance education undergraduate student with research supervision guidelines so that they will be exposed to the required way and manner to conduct their research work. A material in that manner will further deepen students and/or their supervisors' knowledge regarding the current practices of educational research.
6. Lastly, undergraduate distance education students should be provided with counselling and guidance services especially at the regional centres so that students who experience family problems/challenges that may undermine the quality of research and their general supervision and research projects can be controlled if not prevented. Such students may be given proper academic advice to enable them carry on with their research well and on time.

Suggestions for Further Studies

With reference to the present scope of the study, it is suggested that future research work should extend beyond the Northern Region to involve other regions throughout the country. The study also suggests a similar study be

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conducted but using regular undergraduate students in the Northern Region and other regions in Ghana. Lastly, it is recommended that a similar study is conduct to explore the challenges distance education and regular undergraduate as well as postgraduate students face in the conduct of their research work in both private and public universities in Ghana.

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APPENDICES

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APPENDIX A-

QUESTIONNAIRE FOR STUDENTS

UNIVERSITY OF CAPE COAST

COLLEGE OF DISTANCE EDUCATION

Dear Respondent,

I am a student of the University of Cape Coast, College of Distance Education who is conducting research on the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. I humbly seek for your permission for you to participate in this study. The information you shall provide shall be used for academic purpose only without revealing your identity. Please try your best to give truthful responses because there are no right or wrong responses.

Kindly indicate your choice by ticking (√) or writing your responses in the spaces provided

Section A- Background Information

1. Gender:

Male [ ] Female [ ]

2. Study center

Tamale [ ] Yendi [ ]

Section B- Student-related challenges undergraduate distance education students face in conducting research

Kindly tick (√) the appropriate column to indicate the extent to which you agree to the following statements that relate to the student-related challenges

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undergraduate distance education students face in conducting research Ratings: 1- Strongly Disagree, 2- Disagree, 3- Agree and 4- Strongly Agree.

Statements	1	2	3	4
3. Students do not have adequate time to conduct their research work				
4. Students lack the necessary finances to complete their research work				
5. Students are not motivated conduct a research work				
6. Students are not committed conduct a research work				
7. Students lack adequate theory and knowledge in the area being researched on				
8. Students are faced with family problems/commitments				
9. Students do not have research materials as computer and/or laptops and internet facility				

SECTION C- Supervisor-related challenges undergraduate distance education students face in conducting research

Kindly tick (√) the appropriate column to indicate the extent to which you agree to the following statements that relate to the supervisor-related challenges undergraduate distance education students face in conducting research Ratings: 1- Strongly Disagree, 2- Disagree, 3- Agree and 4- Strongly Agree.

Statements	1	2	3	4
10. Supervisors are not able to meet students regularly				
11. Supervisors most at times do not have interest with our topic				
12. Students are often given little or no practical help by their supervisors				
13. There are no/little directions from supervisors to their students				
14. Supervisors fail to return students' work promptly				
15. Supervisors lack research experiences				

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16. Supervisors lack the relevant research skills and or knowledge				
17. Supervisors fail to communicate with their students on their progress				

SECTION D- Institutional-related challenges undergraduate distance education students face in conducting research

Kindly tick (√) the appropriate column to indicate the extent to which you agree to the following statements that relate to the institutional-related challenges undergraduate distance education students face in conducting research Ratings: 1- Strongly Disagree, 2- Disagree, 3- Agree and 4- Strongly Agree.

Statements	**1**	**2**	**3**	**4**
18. My institution fails to offer students adequate courses in research methods				
19. The time spent on conducting research work as giving by my institution is not adequate				
20. I feel that my institution do not expose supervisors to adequate research skills				
21. There is the lack of online research resources at university's website				
22. There is generally the lack of research materials in my institution's website				
23. There is the little or no online interactions in research for distance students				
24. There are inadequate library resources in my institution website				

SECTION E- Suggested ways to address the challenges undergraduate distance education students face in conducting research

Kindly suggest **<u>five (5)</u>** ways of addressing the above challenges where necessary

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2. ……

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5. ……

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THANK YOU!

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APPENDIX B-

QUESTIONNAIRE FOR SUPERVISORS

UNIVERSITY OF CAPE COAST

COLLEGE OF DISTANCE EDUCATION

Dear Respondent,

I am a student of the University of Cape Coast, College of Distance Education who is conducting research on the challenges undergraduate distance education students of University of Education, Winneba, in the Northern Region of Ghana face in conducting research. I humbly seek for your permission for you to participate in this study. The information you shall provide shall be used for academic purpose only without revealing your identity. Please try your best to give truthful responses because there are no right or wrong responses.

Kindly indicate your choice by ticking (√) or writing your responses in the spaces provided

Section A- Background Information

1. Gender:

Male [ ] Female [ ]

2. Study center

Tamale [ ] Yendi [ ]

Section B- Student-related challenges undergraduate distance education students face in conducting research

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Kindly tick (√) the appropriate column to indicate the extent to which you agree to the following statements that relate to the student-related challenges undergraduate distance education students face in conducting research Ratings: 1- Strongly Disagree, 2- Disagree, 3- Agree and 4- Strongly Agree.

Statements	**1**	**2**	**3**	**4**
3. Students do not have adequate time to conduct their research work				
4. Students are not motivated conduct a research work				
5. Students are not committed conduct a research work				
6. Students lack adequate theory and knowledge in the area being researched on				

SECTION C- Supervisor-related challenges undergraduate distance education students face in conducting research

Kindly tick (√) the appropriate column to indicate the extent to which you agree to the following statements that relate to the supervisor-related challenges undergraduate distance education students face in conducting research Ratings: 1- Strongly Disagree, 2- Disagree, 3- Agree and 4- Strongly Agree.

Statements	**1**	**2**	**3**	**4**
7. Supervisors are not able to meet students regularly				
8. Supervisors most at times do not have interest with our topic				
9. Students are often given little or no practical help by their supervisors				
10. There are no/little directions from supervisors to their students				
11. Supervisors are faced with difficulties in returning students' work promptly				
12. Supervisors do not have the chance to communicate with their students on their progress on time				

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SECTION D- Institutional-related challenges undergraduate distance education students face in conducting research

Kindly tick (√) the appropriate column to indicate the extent to which you agree to the following statements that relate to the institutional-related challenges undergraduate distance education students face in conducting research Ratings: 1- Strongly Disagree, 2- Disagree, 3- Agree and 4- Strongly Agree.

Statements	1	2	3	4
13. My institution fails to give students adequate courses in research methods				
14. The time spent on conducting research work as giving by my institution is not adequate				
15. My institution do not organise regular orientation for supervisors				
16. There is the lack of online research resources at university's website				
17. Lack of adequate research materials on my institution's website				
18. There is little or no online interactions in research for distance students				
19. There are inadequate library resources in my institution				

SECTION E- Suggested ways to address the challenges undergraduate distance education students face in conducting research

Kindly suggest **<u>five (5)</u>** ways of addressing the above challenges where necessary

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21. ……

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THANK YOU!

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